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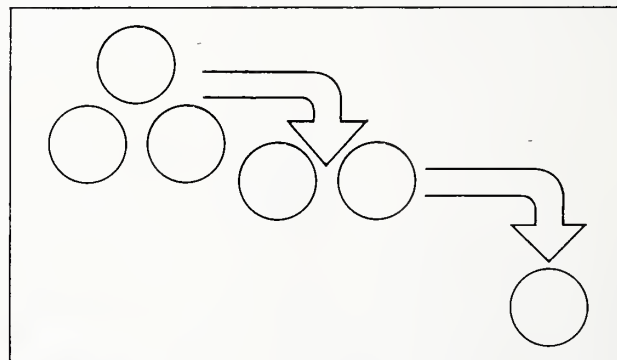
Once steady-state levels are achieved, sudden reemergence of symptoms is unlikely. Diazepam and its active metabolites exhibit overlapping half-lives that are advantageous not only during therapy but especially when pharmacologic support is discontinued. Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for

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\*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978



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**When painful spasm  
is the presenting  
symptom...**





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### IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

### CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.



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The Journal of the Oklahoma State Medical Association (USPS 285-000)

(Cover Art By William Cason)

# Feelings vs.

*Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.*

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to decrease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

*Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.*

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial



# The JOURNAL

AUGUST 1981  
Vol. 74, No. 8

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(Cover Art By William Cason)

# Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

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SEPTEMBER 1981

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OCTOBER 1981

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*Oklahoma State Medical Association*

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**THE PATIENT THINKS  
HE HAS HEART TROUBLE...**





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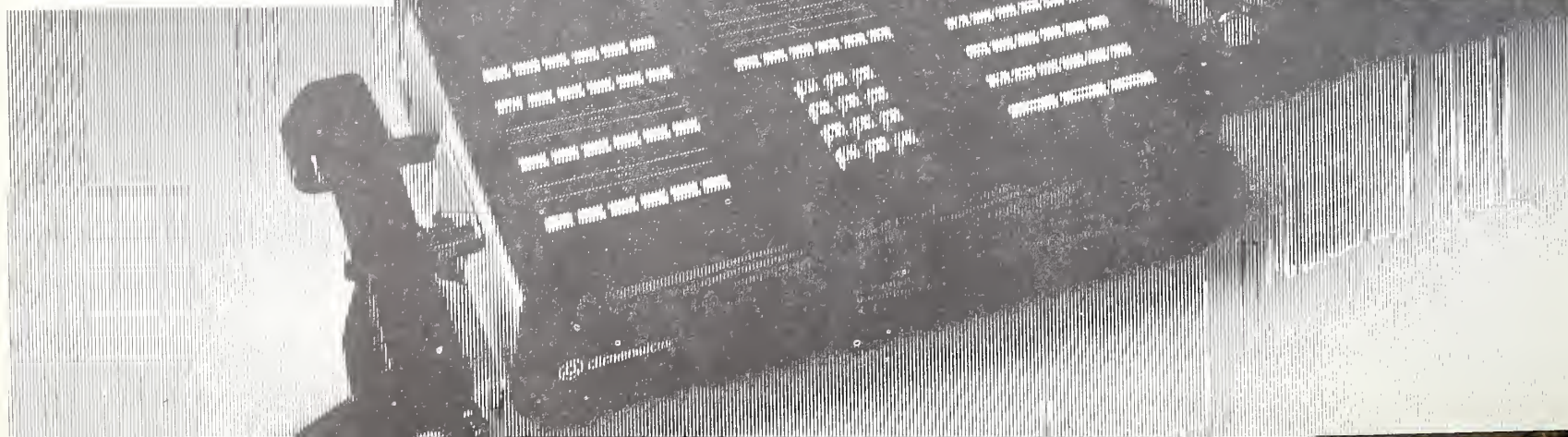
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See Page 7 for Comment

Miami Okla. HJanuary 12th 1918.

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FIRST. ANY ONE HAVEING A SUSPICIOUS SKIN ERUPTION OR BREAKING OUT WILL NOT BE PERMITTED TO TRAVEL? GO ON THE STREETS OR IN PUBLIC PLACES WITHOUT A CERTIFICATE FROM A PHYSICIAN SHOWING THAT IT IS NOT A CONTAGEOUS DISEASE.

SECOND: BUISNESS HOUSES AND ALL PUBLIC PLACES WHERE PEOPLE GATHER 2x, INCLUDING SCHOOLS AND CHURCHES\*, MUST BE THOROUGHLY FUMIGATED ONCE A WEEK\*, USING FORMALDEHYDE.

THIRD. DAIRIES, LAUNDRIES, GROCERIES, MEAT MARKETS, AND ALL OTHER PLACES OF BUISNESS SELLING ANY PRODUCT OR COMING IN CONTACT WITH THE PUBLIC, MUST NOT LET ANY ONE (EMPLOYER OR EMPLOYEE) REMAIN IN THEIR ESTABLISHMENTS WHO HAS ANY SKIN DISEASE OR "BREAKING OUT" WITHOUT A CERTIFICATE FROM A PHYSICIAN STATEING THAT IT IS NOT A CONTAGEOUS DISEASE, FAILURE TO COMPLY WILL MEAN THE QUARRANTINEING OF THE ESTABLISHMENT.

FOURTH. ALL PEOPLE EXPOSED TO SMALL POX WILL BE QUARRANTINED UNTIL THEY ARE VACCINATED AND FUMIGATED OUT, IF THEY HAVE A CERTIFICATE SHOWING THAT THEY WERE SUCCESSFULLY VACCINATED WITH IN ONE YEAR THEY WILL NOT BE FUMIGATED ONLY\* IF THEY HAVE NEVER BEEN VACCINATED BEFORE THEY WILL BE VACCINATED AND IN ADDITION BE REQUIRED TO REPORT TO A LOCAL HEALTH OFFICER IN 5 or 6 DAYS TO MAKE SURE THE VACCINATION WAS A SUCCESS, IF THE VACCINATION DID NOT "TAKE" THEY WILL BE RE VACCINATED\*\*\* UNLESS ALL PERSONS VACCINATED AND FUMIGATED ARE PAUPERS THEY MUST STAND THE COST OF THE SAME. THIS MEANS IF YOU ARE IN A ROOM, COACH, DEPO, HALL, OR CAR WHERE A CASE OF SMALL POX IS FOUND YOU ARE UNDER QUARRANTINE UNTIL THIS RULE IS COMPLIED WITH.

FIVE\*\* ANY PERSON HAVEING SMALL POX AND NOT REPORTING IT TO THEIR LOCAL BOARD OF HEALTH, IF YOU HAVE A PHYSICIAN HE MUST REPORT IT AT ONCE, OR ANY PERSON CONCEALING A CASE OF SMALL POX WILL BE ARRESTED, THEN QUARRANTINED AND AFTER QUARRANTINE IS LIFTED TURNED OVER TO THE COUNTY AUTHORITIES FOR PROSECUTION. THE FINE FOR BREAKING A QUARRANTINE IS 25 to 100 DOLLARS AND 30 days IN JAIL.

ALL PEACE ENFORCEMENT OFFICERS HAVE BEEN INSTRUCTED TO PUT UNDER QUARRANTINE ANY ONE NOT FOLLOWING THE ABOVE RULES AND REGULATIONS

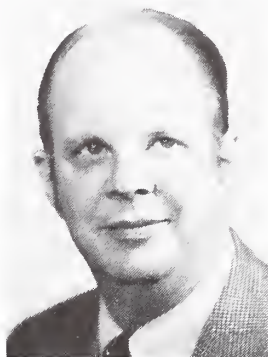
\* \* \* \* \*

IT IS A PUBLIC DUTY FOR EVERY ONE TO GET VACCINATED AGAINST SMALL POX, BUISNESS HOUSES SHOULD INSIST ON ALL THEIR EMPLOYEES DOING SO. THE U.S. GOVERNMENT ADVISES EVERY ONE TO GET VACCINATED EVERY TIME AN EPIDEMIC OCCURS\*\* I WOULD ADVISE THAT YOU GET REVACCINATED IF YOUR OLD VACCINATION IS OVER (3) THREE YEARS OLD\* ITS BETTER TO BE REVACCINATED THAN SPEND 21 to 30 DAYS UNDER QUARRANTINE EVEN THOUGH YOUR CASE MAY BE OF SMALL POX IS IN A LIGHT FORM. THE GOVERNMENT NEEDS ALL OUR OUTPUT FROM THIS COUNTY AND OTTOWA COUNTY CANNOT AFFORD TO HAVE 300 to 400 PEOPLE TIED UP AND IDLE\*\* THE STRICTER THESE RULES ARE ENFORCED THE QUICKER OTTOWA COUNTY WILL CLEAR UP THIS EPIDEMIC AND THE LESS EXPENSE IT WILL BE TO THE COUNTY AND THE INDIVIDUAL...

Approved

(SIGNED) BLAIR POINTS M.D.  
COUNTY SUPT. OF PUBLIC HEALTH,  
OTTOWA COUNTY OKLAHOMA.

Most physicians immediately think of the federal government when government involvement in medicine is discussed. We are all aware of the many programs dictated from Washington that influence the way that we practice medicine. Certainly it would be difficult to overemphasize the changes that have occurred in medical practice as a result of national legislation.



However, we tend to underemphasize the importance of legislation being written at our state capitol in Oklahoma City. Even our licensure which allows us to practice medicine is authorized by state legislation and is subject to change in any legislative session. The current Oklahoma legislature will be deeply involved in possibly rewriting the Nursing Practice Act which has great importance for our nurses as well as ourselves.

Few of us realize how many bills each year are introduced that either affect or potentially affect the practice of medicine in this state. During this session, the OSMA Legislative Committee will probably become actively involved with thirty or more potential laws. In addition, there will be at least fifty or more other bills which affect medicine in varying degrees. Even if our Legislative Committee does not take a position on these latter bills, the members do monitor their progress. A special sub-committee of our Legislative Committee and our Council on Public and Mental Health have already begun reviewing House Bill 562. This is a sixty-seven page document which would recodify Oklahoma's mental health laws. This is an extremely important proposal as it would influence the mental health care of our citizens.

The chiropractors and optometrists will most likely have bills introduced to further expand

their privileges in the care of the patient. The legislature determines whether certain professions can prescribe and administer drugs, perform surgery, or do other types of specific health care. That legislative body may also become involved in the controversy over such drugs as DMSO, and may yet become further involved in the use of Laetrile. A lot of maneuvering will occur concerning sales tax on groceries and drugs. This will influence medical services and medical education in our state teaching hospitals because of funds available to the Department of Human Services.

Our OSMA Legislative Committee spends a great deal of time in evaluating and then taking position of support or opposition to the bills. The chairman of the committee, Dr William Hughes, spends a half day each Tuesday at the Capitol during the legislative session. This is a personal sacrifice that most of us would not be willing to make. Lyle Kelsey, an associate director at OSMA, is in charge of our lobbying. But, Bill, Lyle, and the committee must have the help of the general membership of our association. OSMA members will be called upon from time to time for their assistance in legislative matters. You may be asked to discuss certain bills with your state senator or representative, or you may be asked for your opinion on certain legislation. In either event, your co-operation and assistance is important. With our members' help, a few years ago, we obtained a new law concerning malpractice which had been encouraged by the OSMA. I would also strongly recommend that you serve as Doctor of the Day at the Capitol, as you will sit on the floor of the Senate and House and actually watch the legislative process.

Help us practice preventive medicine at the legislature. Don't wait and then complain about a bill after it has been passed.

A handwritten signature in dark ink, reading "Lloyd J. Miller, MD". The signature is written in a cursive style with a large, stylized "L" and "M".



# Exercise Testing 10-20 Days Following Acute Myocardial Infarction

LOFTY L. BASTA, MD, FACC  
FACP, MRCP, MRCPE  
BRUCE RUMBAUGH, MD  
DONNA SHALLENBURGER, RN

*Exercise testing soon after acute myocardial infarction is safe, provides information of prognostic significance and assists in long-term proper management in 30% of cases.*

## INTRODUCTION

Exercise testing after acute myocardial infarction and prior to discharge from the hospital, has become a standard procedure in many leading medical institutions in the United States. We have been performing exercise evaluations of acute myocardial infarction patients prior to discharge from St John Medical Center, Tulsa, since November 1976.

The objective of this paper is to present our data and to emphasize the safety and the practical significance of exercise testing soon after acute myocardial infarction.

From St. John Cardiovascular Institute and Tulsa Medical College, Tulsa, Oklahoma.

## RATIONALE OF EXERCISE TESTING SOON AFTER MYOCARDIAL INFARCTION

Myocardial infarction (MI) takes six weeks, on the average, to show complete healing. Since that information became widely known, physicians have recommended against excess physical activity for six weeks post-infarction for fear that exercise might have a detrimental effect on the healing of a myocardial infarction, thereby enhancing the possibility of myocardial rupture or aneurysm formation.

Although this logic is based on factual information, it ignores some important facts:

1. The heart is working and consumes oxygen regardless of physical inactivity.
2. Myocardial oxygen demand is influenced primarily by the heart rate and systolic blood pressure, and, to a lesser extent, by such factors as the velocity of myocardial contraction, left ventricular dimensions, and the ejection phase.

To illustrate the importance of these factors, let us compare a patient restless in bed (pulse 130/min, systolic BP 180 mmHg), with another walking leisurely (pulse 90/min, systolic BP 130 mmHg). Since myocardial oxygen requirement is proportional to systolic BP x heart rate (pulse), cardiac oxygen consumption in the patient confined to bed is roughly twice that of the ambulatory patient (130 x 180 vs 90 x 130).

3. The relationship between cardiac work and overall body work is not uniform. As a rule, cardiac work and myocardial oxygen demand increase with increasing physical activity. There is, however, a marked variation in cardiac work relative to total body work in different individuals. To illustrate this point, let us compare two individuals performing moderate physical activity, such as yardwork. In a *physically deconditioned* individual, the heart rate may reach 120 beats per minute and the blood pressure may be as high as 200/120 mmHg. In another individual with better physical training and normal blood pressure, the heart rate may be 90 beats per minute and the blood pressure 120/89 mmHg at the same work load. To perform the same work, myocardial oxygen demand in the second individual is less than half that in the first (90 x 120 vs 120 x 200).

4. It is common practice to discharge patients after periods of near-bed-rest with the advice to increase physical activity "gradually" without testing whether the patient will tolerate such activity. Arrhythmias, chest pain, or signs of heart failure are important complications that may appear during convalescence after an acute myocardial infarction. Notably, arrhythmias decrease in frequency during the first and second weeks post MI. Subsequently, arrhythmias increase in frequency to reach a peak during the third-to-sixth week and these arrhythmias have strong prognostic significance. In addition, a patient confined to near-bed-rest might experience anginal pains with resumption of physical activity. Identification of these problems prior to discharge promotes the initiation of appropriate therapy and provides a basis for recommending or denying certain activities, such as returning to office work, outdoor activities, sexual relations, etc, during the ensuing weeks.

#### PROTOCOL OF EXERCISE TESTING

As yet, there is no standard protocol for exercise testing of recent MI patients. Therefore, we will review currently used protocols and describe the protocol developed at St John Medical Center.

##### I. Standard Work Load Protocol

Many centers use standard exercise work load protocols. One such protocol involves walking on the treadmill at a speed of 1.2 miles

per hour at 0, 3, 6, and 9 degrees inclines. The last of these stages involves a work load of 3.6 mets. (One met = one metabolic unit = body needs during quiet sleep.) 3.6 mets of work allows active indoor life as well as limited outdoor activity, such as walking on level at moderate speed or uphill at a slow speed or performing other light outdoor activities.

##### II. Heart-Rate-Limited Exercise Protocol

Other centers utilize the heart-rate-limited exercise test, with target heart rates of 120-130 beats per minute. Proponents of this protocol argue that since the heart rate is an important determinant of myocardial oxygen demand, it would be unsafe to exercise recent myocardial patients to higher levels of tachycardia. In actual situations, however, individuals do not stop their activities because of certain heart rates, but after accomplishing specific tasks such as buying groceries. Deconditioned or anxious individuals and those with compromised myocardial function will show marked increase in heart rate with little exercise, whereas others receiving propranolol or with sinus node dysfunction will show modest increase in heart rate at much higher work loads. Therefore, heart rate response to exercise is often an important indicator for modification of therapy, such as adding tranquilizers or prop-

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Table I

**OXYGEN REQUIREMENTS (ML/MIN/KG) OF DIFFERENT ERGOMETER  
WORKLOADS AT VARIOUS BODY WEIGHTS**

WEIGHT		ERGOMETER WORKLOAD (KPM/MIN)									
LB	KG	150	300	450	600	750	900	1050	1200	1500	1800
88	40	15	22.5	30	37.5	45	52.5	60	67.5	82.5	97.5
99	45	13.5	20.3	27	33.8	40.5	47.3	54	60.8	74.3	87.8
110	50	12	18	24	30	36	42	48	54	66	78
121	55	11	16.5	22	27.5	33	38.5	44	49.5	60.5	71.5
132	60	10	15	20	25	30	35	40	45	55	65
143	65	9.3	14	18.5	23.3	27.8	32.5	37.3	41.8	51	60.3
154	70	8.5	13	17	21.5	25.5	30	34.5	38.5	47	55.5
165	75	8	12	16	20.3	24.0	28	32.3	36.3	44	52.3
176	80	7.5	11	15	19	22.5	26	30	34	41	49
187	85	7.1	10.5	14.2	17.9	21.3	24.7	28.4	32	38.9	46.2
198	90	6.7	10	13.3	16.7	20	23.3	26.7	30	36.7	43.3
209	95	6.4	9.5	12.7	15.9	19	22.2	25.4	28.5	34.9	41.2
220	100	6	9	12	15	18	21	24	27	33	39
242	110	5.5	8	11	13.5	16.5	19	22	24.5	30	35.5
264	120	5	7.5	10	12.5	15	17.5	20	22.5	27.5	32.5

ranolol, or management of heart failure. On the other hand, we believe that exercise testing to *target heart rates* is not a valid method to assess work capacity.

### III. Symptom Limited Exercise Testing

A few centers, including Stanford Medical Center, perform symptom-limited exercise testing. This involves exercising the patient until he develops shortness of breath, severe fatigue, chest pain, or serious arrhythmia. Ultimately, this method may become standard in most institutions. However, at present we do not recommend this protocol until its safety in patients with recent myocardial infarction is firmly established.

### IV. Individualized Target Work Load

At St John Medical Center, we do not apply a standard protocol for all patients. We aim at a target work load of three to six mets, depending upon the patient's age, sex, prior occupation and lifestyle, and the extent of myocardial infarction. For a young man with an uncomplicated myocardial infarction who is anxious to go back to work, resume sexual activity, and active outdoor life, we aim at a target work load of five to six mets. On the other hand, in an elderly lady whose activity will be limited to indoor life, such as preparing a meal or participating eventually in light housework, a target work load of 3.0-3.5 mets is more realistic.

In our experience, the majority of patients with recent myocardial infarction preferred the bicycle to the treadmill for exercise testing.

Patients recovering from myocardial infarction tend to be more relaxed sitting on a stationary bicycle; they feel in command of the exercise and can, at will, slow down or stop should they develop symptoms. On the other hand, it is not unusual for the heart rate to increase substantially as soon as the patient gets on a treadmill. The graded bicycle exercise protocol is designed according to the patient's weight. (Table I) We aim at a total exercise time of five-to-eight minutes, with the end point being the target work load chosen for the particular individual. The protocols are generally 75, 150, 225, 300 kpm/kg/min, or 150, 300, 450, 600 kpm/kg/min, with each stage lasting two minutes.

On the treadmill, one may use a speed of 1.2 mph at 0, 3, 6, 9 degree inclines (3.6 mets), or a speed of 1.7 mph at 0°, 5°, and 10° (4 mets) with each stage lasting two minutes. Since the speed is held constant, the patient acquires a steady hemodynamic state during the second minute of exercise in a given stage. (This is different from the conventional standard Bruce protocol which allows three minutes in each stage. Because of the change in speed as well as incline with each stage, steady state is achieved during the third minute of exercise in a given stage.) Table II shows commonly used treadmill protocols.

### ELIGIBILITY FOR AN EXERCISE TEST

Few patients recovering from recent myocardial infarction are *not* candidates for

### LIMITED EXERCISE TESTING PROTOCOLS TREADMILLS

Protocol	Speed In MPH	Incline In Degrees	Workload In Mets	Activity At Peak
*1	1.2	0, 3, 6, 9	1.5, 1.8, 2.4, 3.2	light housework
**II	1.7	0, 5, 10	1.7, 2.9, 4.0	active indoor life limited outdoor activity
***III	2.0	0, 3.5, 7.0 10.5, 14.0	2, 3, 4, 5, 6	considerable outdoor activity and light sports

\*For older patients or those with prior heart disease.

\*\*Average post MI patient

\*\*\*For young patients without prior heart disease or in-hospital complications

exercise testing. Included are those with orthopedic problems, neurologic disease, venous thrombosis, recent history of pulmonary embolism, and those recovering from acute pump failure (cardiogenic shock) or demonstrating congestive heart failure.

In our laboratory, the end points for a limited exercise test include:

1. Achieving target work load
2. Frequent, multiform or "back to back" Premature Ventricular Contractions (PVC) or tachyarrhythmia (ventricular or atrial)
3. High-grade atrioventricular (AV) block or sinus node exit block
4. Classic angina pectoris
5. Shortness of breath or exercise fatigue
6. Sudden drop in blood pressure
7. Two mm ST change (depression or elevation) at 0.08 seconds from J point by comparison to pre-exercise level

#### ST JOHN MEDICAL CENTER EXPERIENCE

During the past two years, 54 patients with recent myocardial infarction underwent exercise evaluation at St John Medical Center utilizing bicycle or treadmill exercise test. The group comprised 41 men and 13 women with an age range 34-81 years (mean age 62.8 years).

As shown in Table II, the target work load ranged 2.4 to 6.0 mets. Heart rate at peak exercise ranged 74 to 160 beats per minute. Systolic blood pressure at peak exercise ranged 120 to 220 mmHg.

Sixteen patients, comprising 14 men and two women with an age range of 52-74 years (mean 63.7 years), showed significant changes in response to exercise. Of these, six developed an-

gina, two showed a sudden drop in blood pressure, six exhibited multiform ventricular ectopic activity, and one patient developed supraventricular tachycardia. Nine patients showed significant ST changes in response to exercise. (Table III)

On followup, of these 16 patients, 11 (69%) continued to have problems. Seven patients experienced angina and two underwent bypass surgery. Four patients developed signs and symptoms of congestive heart failure and one experienced a pulmonary embolism.

By contrast, 38 patients did not develop symptoms or significant ST changes on limited exercise testing. These comprised 27 men and 11 women with an age range of 36-81 years (mean 58.6). Of these, only 14 patients (37%) were symptomatic on followup. Angina pectoris was experienced by eight patients, of whom four underwent bypass surgery. Five others developed features of congestive heart failure, and one patient sustained a recurrent myocardial infarction.

These two groups showed statistically significant difference in outcome ( $P < 0.05$ ).

Table III

Prognostic significance of "positive" ETT early after MI (6-18 months follow-up):

	Negative 38 patients	Positive 16 patients	( $P < 0.05$ )
Asymptomatic	68%	30%	
Symptomatic	32%	70%	n.s.
Angina	16%	40%	n.s.
CHF	13%	20%	n.s.
MI	3%	—	n.s.
Pulmonary embolism	—	6%	n.s.



Our experience indicates that exercise testing early after myocardial infarction is: (1) safe: we did not encounter any complication during exercise testing; (2) valuable for designing physical activity during the early post-hospital phase; (3) helpful in identifying patients in whom modification of treatment is necessary: 30% of the patients tested required management of angina, arrhythmias, heart failure, hypertension, and/or exaggerated heart rate response; (4) of predictive value: patients exhibiting limiting symptoms or significant ST segment changes had a significantly less favorable prognosis than those who did not show ST segment changes or limiting symptoms at this low level of exercise.

We recommend individualized exercise testing with target work loads for patients with recent myocardial infarction prior to discharge from the hospital. Such testing provides useful information about the rational management of patients with recent myocardial infarction.

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## Father's Time

*See Editorial Page*

As we enter a New Year, bright with the prospects for victories in the continuing war with disease and disfigurement, it seems appropriate to look back at the way it was, in this case, less than a lifetime ago.

The notice reproduced, with no alterations, on the editorial page of this issue was posted in several locations in Miami, Oklahoma. Dr Blair Points, father of our contemporary colleague, Dr Tom Points, was the part-time County Health Officer for Ottawa County at the time of the epidemic of a dreadful disease which, we pray, is indeed now eradicated from the plagues of man.

Doctor Blair Points was a member of the first class to be graduated from the University of Oklahoma School of Medicine in 1911. It is not known whether the notice was ever published in a periodical or how much, if any salary was paid Dr Points for his valuable services to his community.

Looking at our past is, perhaps, the best way to plan for our future; with enthusiasm, energy, optimism and humility. The view behind us justifies our dedication to the goals ahead.

MRJ

*The Staff of The Journal wishes to express its gratitude to Dr Tom Points for sharing with us this gem of history.*

# Rehabilitation Following Hand Injury

LINDA H. SCHOENHALS, RPT

*This article discusses the methods used to treat hand and upper extremity disability. It includes initial evaluation, treatment procedures and sensibility retraining.*

Until a few years ago, hand surgeons were reluctant to refer their patients for physical therapy treatment. It was said by some surgeons that the best therapist for their patient was a therapist with no hands. This attitude has changed considerably in the past few years. In February 1978, the American Society of Hand Therapists held its first meeting in Dallas, Texas in conjunction with the American Society for Surgery of the Hand. Because of this change in attitude, many physical and occupational therapists across the country whose special interest area is in hand rehabilitation have come together and called themselves Hand Therapists.

The benefits of physical therapy to the patient and physician are many. A qualified therapist can save the physician's time in his office trying to teach the patient prescribed ex-

ercises. Therapy can decrease the total man hours involved in the patient's treatment by preventing deformity which may require further surgical intervention. It is an additional expense initially, but will decrease total expense by returning the patient to his job earlier, cutting loss of income and shortening disability time.

The initial physical therapy visit begins with a comprehensive evaluation of the patient. This gives a basis for scientific measurement of progress and continual reevaluation aids in assessing the effectiveness of the treatment program and lets the patient see progress in actual numbers.

The hand evaluation includes an assessment of functional activities, range of motion measurements, circumferential measurements, and a sensory evaluation.<sup>1</sup> Circumferential measurements are taken to assess swelling and edema. Volumetric measurements are taken to measure increases or decreases in the edematous hand. A sensory evaluation is also performed for re-education training and to assess nerve regeneration. Also as a part of the evaluation are the traditional active and passive range of motion measurements and the evaluation may include a manual muscle test if indicated.

Methods to heat or cool the hand to decrease pain and increase circulation prior to treatment vary. Care must be taken to insure that





FIG 1  
Hand Rehabilitation Workshop

insensitive areas are identified and protected. Ultrasound may be given underwater over irregular joint surfaces and therefore lends itself for use in treating stiff joints of the hand. Lehman states in *Therapeutic Heat and Cold* that "shortened fibrous tissues can be selectively heated and temperature level in tissues elevated enough to produce an increase in extensibility."<sup>2</sup> Ultrasound is also effective in treating the thickened palmar aponeurosis of Dupuytren's contracture. It is effective in treatment of pain which occurs in traumatic neuromas especially where they are imbedded in scar tissue. It has been found that nerve and scar tissue can both be heated selectively with alteration in nerve function by ultrasound ap-

plication. Electron microscopic studies have shown that ultrasound is capable of separating collagen fibers, therefore decreasing scar tissue formation.<sup>3</sup> It is of benefit when tendons are adherent to scar tissue which will not permit full excursion.

Massage is included in hand treatment to decrease edema and sensitivity of the hand. Friction massage is used to help decrease and soften scar tissue. Commercial products are also available to help decrease edema in the hand such as the Jobst Intermittent Pressure unit. Contrast baths are used to control edema and are helpful in some reflex sympathetic dystrophies.

Following modality treatment the exercise program is initiated. Exercises for the hand include passive, active, and resistive exercises. Passive exercises are beneficial in maintaining joint range of motion, preventing tendon and joint adherence, and preventing shortening of the joint capsule and especially the collateral ligaments. Electrical stimulation of denervated muscles is another form of passive exercise. Electrical stimulation helps retard the process of muscle atrophy and keeps the mus-

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FIG 2

This 69-year-old lady sustained a fracture of the middle phalanx of the fifth finger while at work April 13, 1978. She is sanding, using the small dowel in the injured hand for static grip to increase range of motion of all stiff fingers. She began activities in the Hand Workshop June 22, 1978 and returned to work July 24, 1978.

cle in tone so that when the nerve regenerates it finds a muscle that is adequate for function. Electrical stimulation may also be used in muscle re-education following tendon transfers. When a patient is ready to begin passive exercises, a splint is often fabricated for night wear. This creates a long interval of slow stretch with dynamic traction which is a less traumatic way of gaining joint motion than forced passive stretching. Serial static splinting allows for gradual relaxation and remodeling of the joint tissues allowing the joint to be further corrected or resplinting.<sup>1</sup> Once the correction is achieved, the splint may be worn at night as a retainer. It is important if the patient has joint contracture and passive exercises are permitted, that he be fitted with some type of splint or flexion or extension device to wear at night. This reduces tearing of joint structures and edema. Harsh passive motion can cause tissue tearing resulting in edema

and pain which would result in a less mobile joint.

A good active exercise program will help maintain the muscle tone, reduce edema, and stretch the scar tissue around tendons to aid in gliding. Resistive exercises are initiated when there is no danger of rupturing repaired tendons or nerves or causing damage by the resistance. Patients are also instructed in strengthening of all upper extremity musculature.

When the patient is ready to perform heavier work he is referred to the Hand Workshop. He can spend the entire day, if tolerated, using his injured extremity in supervised directed activities. Activities for static grip and fine motor



FIG 3

This 46-year-old man sustained an avulsion injury to the dorsum of the right (dominant) hand while working January 14, 1978. The third and fourth extensor tendons were involved and a groin flap was required for skin coverage. He was treated initially for three weeks to gain range of motion prior to extensor tendon grafting May 1978. Following grafting he was seen for five weeks for strengthening exercises and to increase functional use of his hand. Here he is using a mallet while carving wood. The vibration from hammering helps decrease sensitivity of the hand as well as increase grip strength. Patient returned to work July 17, 1978.



control include leather work and wood carving. For continuous hand mobility he may work with modeling clay, and for gross movement, wood sculpturing and macramé. He can use saws, hammers, and heavier tools on wood projects. Participation in the Hand Workshop provides a means of increasing endurance needed to return to a full-time job. The patient is under professional guidance constantly so that he may benefit from these activities. The tools and equipment are adapted according to each patient's needs. (Figures 1, 2, and 3)

Sensibility retraining is another very important aspect in the total rehabilitation of the hand patient. This retraining in the interpretation of altered pathways following nerve repair is important so that the patient may make use of his full potential. Exercises to increase sensibility include retraining in constant and moving touch following the patterns of nerve regrowth. Curtis, Edgerton, and Dillon describe an excellent program in the March 1974 issue of *Plastic and Reconstructive Surgery*.<sup>5</sup> The patient may also be instructed to identify small common objects placed in his hands with

his eyes closed. Both muscle re-education, and sensibility retraining are important to give the patient a normal functioning hand. Desensitization exercises are included for the hypersensitive hand.

All patients should be given a written home program with specific instructions in exercises to continue at home. A good program includes pictures showing the exercises and accompanied by written instructions which include the frequency and duration of each session. This gives the patient a definite plan to follow and reinforces the importance of what he does at home.

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# An Overview of High-Risk Pregnancy

WARREN M. CROSBY, MD  
ROGER E. SHELDON, MD

*This is the first of a series of articles designed to bring Oklahoma physicians up-to-date with regard to the identification and management of high-risk pregnancies. This survey article will be followed by periodic indepth discussions of the management of each individual high-risk pregnancy problem.*

In the past, pregnancy management often was haphazard and reactive to serious clinical situations only when they became manifest. It is clear, however, that early recognition of maternal problems can help reduce the severity of the disease in the mother and improve perinatal mortality. Often early delivery may ameliorate or cure the disease in the mother, but with the added risk to the baby of prematurity. There has been remarkable improvement in perinatal mortality of small and sick prematures in the last decade, thanks to the development of neonatal intensive care

units and more active management of maternal problems. The development of techniques to anticipate fetal death in utero has further improved perinatal survival in high-risk pregnancies.

There are four relatively distinct areas of concern with regard to high-risk pregnancy: The first area actually precedes pregnancy itself in patients with chronic diseases such as rheumatic or congenital heart disease, hypertension, diabetes and renal disease, in which the severity of the disease may preclude successful pregnancy. Genetic diseases that are known to exist in the family should be evaluated and the patient given counselling so that she and her husband may appropriately decide whether or not to have children. Secondly, in early pregnancy the risk of fetal genetic disease may be assessed, abortion may be performed when indicated, and reassurance offered when it is not. Thirdly, during the second half of pregnancy, careful management of maternal disease improves perinatal outcome. In particular, careful assessment of fetal welfare in utero can be carried out in those maternal diseases in which the life of the fetus is in jeopardy prior to the onset of labor, and measures may be taken to treat the problem or deliver the fetus prior to its demise. And lastly, careful monitoring of the high-risk mother and fetus during labor can prevent intrapartum death.

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Prepared under the auspices of the Committee for Perinatal Health and the Oklahoma Renal Infant Care Project.



There are a few medical problems that occur in young women which may be so severe as to make the risk of pregnancy very significant. Such patients should be counselled carefully prior to pregnancy if at all possible, so that the decision as to whether to accept the risk of pregnancy can be made before the pregnancy occurs and the issue of abortion might need be considered. The most common problems recognizable in young women are rheumatic heart disease, congenital heart disease, chronic renal disease with hypertension and proteinuria and diabetes mellitus with vascular, neurologic, or renal complications.

### Heart Disease

In general, patients with either rheumatic or congenital heart disease tolerate pregnancy reasonably well, provided they have a reasonable work tolerance. The New York Heart Association has published a classification of heart disease based on the functional capacity of the patient, and this classification correlates well with the functional reserve capacity of the heart. Thus, functional Class I and II (cardiac patients who have either no or slight limitation of physical activity in their everyday life) tolerate pregnancy well because the demands of pregnancy do not exceed the capacity of their heart to meet those demands. Conversely, functional Class III and IV patients (those with marked limitation of physical activity or those who are symptomatic at bedrest) have little or no functional reserve capacity of the heart and the added burden of pregnancy significantly threatens the life of the mother. Burwell and Metcalfe<sup>1</sup> have indicated that even severely impaired cardiac patients may survive pregnancy with adequate medical care, but this may require bedrest in the hospital throughout the entire pregnancy. The most significant and treacherous condition is that unusual congenital heart lesion in which there is a large communication between the left and right sides of the heart with pulmonary hypertension. This situation is known as "Eisenmengers Physiology" and is particularly lethal when pregnancy supervenes. Pitts, Crosby, and Basta<sup>2</sup> reported seven consecutive patients with Eisenmenger's Physiology whose pregnancies were managed at the University of Oklahoma Health Sciences Center. Five of the seven patients died suddenly during or shortly after pregnancy. The

prohibitive mortality during pregnancy and the inability of cardiac surgery to improve pulmonary hypertension demands that these patients be offered permanent sterilization.

### Chronic Hypertension

The majority of patients with chronic hypertension tolerate pregnancy with some increase in perinatal mortality. The most severe cases however, have a prohibitive perinatal mortality rate and a significant risk for maternal mortality due to the added solute load brought on by the pregnancy. Certainly patients who are azotemic prior to pregnancy should have permanent sterilization if they are not candidates for renal transplantation. Renal transplant patients themselves tolerate pregnancy reasonably well and an occasional patient has tolerated pregnancy with chronic dialysis.<sup>3</sup>

### Diabetes Mellitus

Most diabetics also tolerate pregnancy well but the risk of perinatal mortality increases significantly with complications. Patients with retinopathy, neophropathy, or coronary insufficiency (White's classification R, F, H) have such a high perinatal mortality, maternal morbidity and mortality, and fetal malformation rate, that pregnancy is contraindicated. Pederson<sup>4</sup> reports 25 Class F diabetics who

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achieved a pregnancy against his advice. Only one baby survived the neonatal period.

### **Collagen Diseases**

Patients with lupus erythematosus or scleroderma may have such severe complications from their diseases as to preclude pregnancy. These complications include severe renal disease with azotemia and hypertension. Such patients usually are infertile but they should be advised against pregnancy, at least until the disease is in remission and renal function approximates normal.

### **Chronic Lung Disease**

Patients with chronic obstructive pulmonary disease with severe restriction of oxygenation (particularly those with persistent elevations of  $p\text{CO}_2$ ) should not become pregnant. While pregnancy in patients with such severe pulmonary restrictions is rare, the development of respiratory acidosis during pregnancy would be expected to have a serious deleterious effect on fetal growth and metabolism. Patients with active tuberculosis should also avoid pregnancy until such time as they become non-infective and stable.

### **Hemoglobinopathy**

Sickle cell anemia and hemoglobin SC disease have been reported to be associated with very high maternal mortality rates. Modern treatment has reduced this risk considerably but the added morbidity of pregnancy in these diseases makes counselling for permanent sterilization mandatory. These patients have marked anemia, a high perinatal mortality rate, and significant risks of bone marrow emboli, heart failure, and pre-eclampsia.<sup>5</sup>

### **Abortion**

Should any of the above situations be encountered in the first 20 weeks of pregnancy, therapeutic abortion should be seriously considered. The risks of the abortion itself, as opposed to the progress of the medical disease, should be carefully weighed against the possibility of the mother carrying the pregnancy to term.

#### EARLY PREGNANCY: GENETIC DISEASE

In the past decade amniocentesis has en-

abled identification of many genetic disorders in the fetus.

Who should have amniocentesis for prenatal genetic diagnosis?

1. Those who have had a child with a chromosomal defect such as Down's Syndrome (mongolism) (Trisomy 21), or Trisomy 18.

2. Those who are known to be carriers of a balanced chromosomal translocation.

3. Pregnant women 35 years of age or older.

4. Those who have already delivered a child with an inborn error of metabolism that can be identified by amniocentesis.

5. Those who have delivered a baby or have a strong family history of sex-linked disorders such as hydrocephalus or muscular dystrophy.

6. A close relative who has a child with a chromosomal or identifiable genetic disorder.

7. Habitual abortion.

8. A previous child with multiple congenital anomalies.

9. A previous child with an open neural tube defect (meningocele anencephaly).

Pregnant patients with any of the above indications should have a prenatal diagnostic amniocentesis between the 16th and 19th week of gestation. Prior to the 16th week amniotic fluid is more difficult to obtain and therefore the number of unsuccessful taps is relatively high. It ordinarily takes 3-4 weeks to grow the cells in tissue culture and properly analyze them for chromosomes or the more complicated analysis for genetic inborn errors of metabolism. Thus, performance of amniocentesis for this purpose beyond 20 weeks makes the opportunity for abortion of an affected fetus more likely to result in a viable infant. The majority of patients have prenatal genetic diagnosis performed for maternal age. The incidence of Trisomy 21 and other chromosomal abnormalities in pregnancies in which the mother is age 35-40 years is somewhat less than 1%. From age 40-45 years the incidence is around 1% and above 45 years it rises to 2-3%.

There is a multiplicity of rare genetic disorders, ordinarily autosomal recessive in inheritance pattern, that are too numerous to list here. Many of these are accompanied by severe mental retardation, serious physical handicaps and early death. It is of the utmost importance to have a precise diagnosis as to the disease in the affected relative so that it can be determined whether or not that disease is one that can be diagnosed by prenatal diagnostic amniocentesis.<sup>6</sup>



### **Discrepancy between menstrual dates and uterine size**

One of the more common dilemmas faced by the obstetrician is discrepancy between the menstrual dates given by the patient and the assessment of the length of gestation by the usual clinical tests of measurement of fundal height and the time of appearance of fetal heart tones. In the majority of normal pregnancies, discrepancy in the size of the fetus at any given time is most likely to be due to inaccurate menstrual dates. Boyce and Mayeaux have shown in pregnancies with known ovulation dates that over 70% of patients that went more than two weeks overdue by menstrual dates actually had a normal length of gestation when measured from their ovulation time. The problem was that the menstruation-to-ovulation interval was prolonged and the pregnancy actually began at varying intervals from the last menstrual period.<sup>7</sup> In the absence of known ovulation time, the obstetrician will not be able to know whether the dates are inaccurate or whether there is an abnormality of fetal growth or multiple gestation.

### **Maternal Hypertension**

Maternal hypertensive disorders are common. Pre-eclampsia alone complicates about 10% of primigravid pregnancies. Pre-eclampsia is identified classically by the development of hypertension, proteinuria and edema. The hypertension is defined as a blood pressure of 140 mm Hg systolic and 90 mm Hg diastolic or a rise of 30 mm Hg systolic or a rise of 15 mm Hg diastolic over the earlier baseline obtained during antepartum care. Proteinuria is decidedly abnormal during pregnancy. A 1+ reaction on a dip-stick indicates the presence of at least 300 mg of albumin per liter of urine which translates into approximately 500 mg of albumin per 24 hours. This is the lower limit of albuminuria required for the diagnosis of pre-eclampsia. Edema is very common during pregnancy. Edema in the upper half of the body is more unusual than edema in the lower half of the body and often accompanies the pre-eclampsia syndrome. However, a large number, maybe even a majority, of pregnant women will have symptoms associated with upper body edema, in the absence of either

hypertension or proteinuria. There is little question that pre-eclampsia increases mortality and morbidity for both the mother and the fetus. When a pregnant patient develops pre-eclampsia, hospitalization and consultation should be obtained to insure optimum care. When possible, patients with severe pre-eclampsia should be delivered in a hospital with facilities for neonatal respiratory support.

### **Chronic Hypertension**

Chronic hypertensive disorders during pregnancy should be managed differently than acute pre-eclampsia. Patients who are identified as having had hypertension and are on medication prior to the onset of pregnancy should be kept on their medication. Ordinarily in early pregnancy the blood pressure will fall somewhat due to the decrease in maternal peripheral resistance. However, in later pregnancy the blood pressure may increase, even in the absence of pre-eclampsia, and anti-hypertensive drug dosage may need to be altered accordingly.

### **Isoimmunization**

Isoimmunization pregnancies are identified by the indirect Coomb's test (or antibody screening test) which should be performed in every pregnancy. When the indirect Coomb's test or the antibody screening test is positive, there is an abnormal iso-antibody. Some of these abnormal iso-antibodies cause hemolytic disease in the newborn and some do not. The most common abnormal iso-antibody is that due to the Rh factor, but even Rh positive patients may have iso-antibodies, many of which may cause just as severe hemolysis in the newborn as Rh isoimmunization. Isoimmunized patients should be managed with the help of an obstetric consultant.

### **Diabetes**

Appropriate management of the diabetic pregnancy requires the utmost in cooperation between the patient, her physician and her obstetrician. The successful completion of a diabetic pregnancy depends almost entirely upon rigid control of the diabetes and the avoidance of medical and obstetric complications. The more severe the diabetes, the higher the risk of perinatal death. Diabetic pregnancies should be managed by appropriate and



frequent consultation. Delivery should always be planned and should occur in a hospital equipped for newborn respiratory and metabolic assistance.

### **Heart Disease**

As indicated previously, patients with heart disease seem to come in two varieties, those with functional Class I and II heart disease which seem to fare pretty well during pregnancy, and those with Class III or IV heart disease in whom the risks are high.

Patients with severe heart disease should be managed in a tertiary care center with immediate access to obstetricians experienced in their care, cardiac surgeons, cardiologists, and the immediate availability of a neonatal intensive care unit. Such patients have a high likelihood of premature labor and fetal growth retardation.

### **Chronic Renal Disease**

Patients with chronic renal disease that are not azotemic may be allowed to continue with pregnancy. Patients with hypertension should be continued on their anti-hypertensive medication and their doses and drugs adjusted to bring the blood pressure under as much control as possible. Renal function should be assessed in early pregnancy, by the use of creatinine clearance. Creatinine clearance should be above 100 ml/min after the first trimester and levels below that imply impaired renal function. Creatinine clearances below 30 ml/min are usually associated with azotemia during pregnancy and reflect a grave prognosis. Patients with reduced creatinine clearances should be managed with the help of appropriate medical and obstetrical consultation. Since the fetus is likely to be delivered prematurely and often has growth retardation, the risk of fetal death in utero is increased. Delivery of a small baby that is sick and growth-retarded is best accomplished in a hospital with a well-equipped nursery and appropriate pediatric supervision.

### **Rare Diseases**

Hyperthyroidism may be fulminant during pregnancy and seriously threaten the life of the mother. Appropriate management is best carried out in consultation with a specialist in

obstetrics as well as with an internist familiar with the disease. The patient is at significant risk for pre-eclampsia or eclampsia, the fetus is at risk for overtreatment hypothyroidism, premature delivery and perinatal death.

Collagen diseases such as lupus erythematosus and scleroderma infrequently are complicated by pregnancy. However, such patients will need careful management with immunotherapy and consultation with a specialist in obstetrics and in internal medicine. The perinatal mortality associated with such diseases is extremely high. The fetuses are invariably undergrown and ill, and delivery should occur in a referral center with a neonatal intensive care unit.

Acute pancreatitis during pregnancy presents a serious threat to the life of the mother. All but the most benign cases should be managed with the help of an internist. Should the disease arise in late pregnancy, it is usually possible to salvage the fetus by careful maternal metabolic control.

Hemoglobinopathies: Mothers with sickle cell disease (SS Hemoglobin) and hemoglobin SC disease have a high maternal and perinatal mortality. Therapeutic abortion should be offered such patients. Should the patient elect to continue the pregnancy, care should be accomplished with frequent consultation with an obstetrical specialist experienced in the management of these patients and a hematologist. Delivery should be accomplished in a hospital with capabilities for management of blood dyscrasias as well as a nursery equipped to care for the high risk newborn. Patients with sickle trait (SA Hemoglobin) and most patients with beta thalassemia are much less of a threat during pregnancy and, except for iron deficiency anemia and recurrent urinary tract infections, seem to do fairly well.

Cancer: There is no evidence that previously treated cancer patients are made worse by pregnancy. The exception is breast cancer. While it is clear that high levels of estrogens stimulate the growth of many breast cancers, there is no proof that abortion of a patient with treated or untreated breast cancer improves her prognosis. Pregnant patients with treated or untreated breast cancer should be treated in consultation with specialists experienced with the disease and its course during pregnancy.

### **DURING LABOR**

While there is some controversy at the present time over the use of fetal monitoring in



normal patients, there is no controversy about the advisability of monitoring labor in high-risk pregnancies. Virtually all of the diseases discussed in this article have an increased risk of fetal death during labor. Thus, each of the mothers exhibiting these diseases should be delivered in an obstetrical unit that has electronic fetal monitoring available. The development of fetal distress is ordinarily rapid and requires immediate treatment. Thus, it is not appropriate for the high-risk mother to undergo labor in a hospital that cannot offer her immediate management of the known complications of her disease nor should it occur in a hospital that may offer the mother satisfactory care but does not have a nursery that regularly cares for a small sick newborn.

#### DISCUSSION

Each of the high-risk problems discussed in this article may vary from relative minor maternal disease that presents fairly low risk to the mother and to the baby, to extremely high-risk situations in which both lives are at stake. Similarly, the capabilities of the patient's physician will vary from great interest and experience with the high-risk problem in question (in which case no consultation would be necessary) to a relative lack of experience and interest in which not only consultation but outright referral would be the most appropriate course of management. The management of most high-risk pregnancies by most physicians who routinely handle obstetrical patients will fall between these two extremes. Many patients can be managed in the local community with only telephone consultation with an appropriate consultant. In other situations, the patient may be seen for antepartum care by both the consultant and the primary physician. This is often accomplished for the pregnant diabetic who lives in a rural community, who may alternate her visits between the consultant and the local physician who work together. The pregnancy may be largely managed in the local community until such time as complications arise or the delivery of a premature or sick infant is anticipated. At that point it may be prudent to refer the patient to the specialist, not because of the inability of the physician caring for the mother to manage the termination of pregnancy, but because of the inadequacies of the nursery into which the high-risk baby will be born. Referrals for delivery in high-risk patients are called

"perinatal referrals." Perinatal referrals have been demonstrated to improve perinatal mortality significantly as compared with delivery in the local hospital with neonatal transport to the neonatal intensive care unit.<sup>8</sup> The mother is the best incubator in which to transport the baby. Neonatal transport of sick prematures should be accomplished only when the management plan fails to identify the high-risk infant prior to the onset of labor, with the delivery occurring in the hospital with a nursery that is unable to care for him.<sup>8,9</sup> All nurseries should have the capability of stabilizing the condition of newborn infants, including intravenous and respiratory support while awaiting transportation. Patients in active labor should not be transferred because of the inordinate risks of delivery in the transport vehicle.

#### SUMMARY

In this article we have surveyed the management of high-risk pregnancies, pointing out the areas of major concern for the mother, fetus and newborn. Consultation for these problems will depend upon the interest, training and experience of the patient's physician, and may appropriately vary from a telephone discussion of the case, sharing of antepartum visits between the consultant and the primary physician, or outright referral. Perinatal referral, in which the fetus, still within the mother, is transferred to better-equipped hospitals, is shown to result in lower morbidity and mortality than neonatal transport after delivery in the local community. Table I provides a quick reference to the basic principles outlined in this survey article. Future articles in this series will discuss identification and management of high-risk pregnancies in more detail.

TABLE I

#### HIGH-RISK PREGNANCIES

- A. Preconceptional considerations: Whenever possible young women with these problems should have counselling regarding the advisability and risks of pregnancy and contraception before they become pregnant.
  1. Heart Disease
  2. Chronic Hypertension
  3. Diabetes Mellitus
  4. Systemic Lupus Erythematosus
  5. Chronic Lung Diseases
  6. Hemoglobinopathies

B. Genetic Disease: Patients with any of the following situations should be offered counselling about the risks of having a defective child and, when abortion is acceptable to the patient, should an abnormality be found, a prenatal genetic diagnostic amniocentesis should be performed.

1. Previous child with Down Syndrome Trisomy 21 (Trisomy 13/15 or Trisomy 18).
2. Known carriers of a balanced chromosomal translocation.
3. Maternal age 35 years or older.
4. Previous child with an inborn error of metabolism that can be identified by amniocentesis.
5. Strong family history of sex-linked disorders such as hydrocephalus, muscular dystrophy, or hemophilia.
6. Strong family history of chromosomal or identifiable genetic disorder.
7. Repeated abortion.
8. Previous child with multiple congenital abnormalities.
9. Previous child with an open neural tube defect (meningocele anencephaly).

C. Maternal and Obstetrical Problems: Physicians caring for obstetric patients with these high-risk problems should consider consultation with a specialist as to recent developments in obstetric care. Plans should be made for delivery in the most appropriate facility for proper care of mother and the newborn.

1. Maternal hypertension.
2. Rh and other isoimmunization.
3. Diabetes Mellitus.
4. Heart Disease.
5. Chronic Renal Disease.
6. Rare Diseases, hyperthyroidism, acute pancreatitis.

D. Labor Problems: Physicians should recognize the increased risks invoked by the development of these problems during labor. Consultation with a specialist should be sought whenever possible for optimal and individualized care for both the mother and the baby. Ordinarily transfer of a mother in active labor is more hazardous than treating the acute problem in the hospital in which it arose.

1. Threatened premature labor.
2. Post dates pregnancy. (> 42 weeks)
3. Malpresentation.
4. Fetal distress:
  - a. Meconium staining of amniotic fluid. (The risk of meconium aspiration respiratory distress may require careful respiratory support.)
  - b. Fetal heart rate abnormalities.

E. High-Risk Newborns: Following delivery of a newborn with any of these problems, consultation with a specialist should be sought to optimize proper care and/or appropriately timed transfer of the sick baby to a referral center.

1. Gestational age less than 35 weeks.
2. Birth weight less than 2000 grams or greater than 5000 grams.
3. Respiratory distress that persists after one hour from birth and requires supplemental oxygen.
4. Recurrent apnea.
5. Apgar scores equal to or less than 5 at 5 minutes.
6. Infant of a diabetic mother.
7. Seizure activity, focal paralysis, abnormal head size or bulging of the fontanelle.
8. Suspected sepsis.
9. Cyanosis, pallor, jaundice during the first 24 hours of life.
10. Petechiae, bruising or hemorrhage.
11. Failure to void urine by 48 hours.
12. Failure to pass meconium by 24 hours.
13. Persistent abdominal distention, bile-stained vomitus or persistent vomiting.

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Two recent cases of gonococcal ophthalmia neonatorum have served as a reminder to physicians and hospitals in the state of the continuing significance of this disease as a public health concern.

With appropriate attention to two preventive measures, this disease should not occur. First, all women should have a gonococcal test as part of prenatal care and, second, as required by law, all newborns should receive prophylactic eye treatment.

State law provides for the use of chemoprophylaxis in the eyes of newborns as follows:

§1-511. Treatment for inflammation of eyes.

— It shall be unlawful for any physician, osteopath, chiropractor, or other person attendant upon the birth of a child to fail to instill immediately upon its birth, in both eyes of the newborn child, a one percent (1%) solution of nitrate of silver; provided that the State Board of Health shall have authority to approve the use of antiseptics, other than nitrate of silver, for use in the eyes of newborn children, and to prescribe the manner of their use. Should a physician or a parent of a child deem it best for the interests of the child not to use any prophylac-



## News From The Oklahoma State Department of Health

tic, he shall not be required to do so provided that he states fully, in writing, to the local health officer, within three (3) days from the birth of the child, the reason for not doing so.

Laws 1963, c. 325, art. 5, §511.

The State Board of Health revised the list of prophylactic agents in a new regulation adopted on March 29, 1980:

Pursuant to authority vested in 63 O.S. 1971, Section 1-511, the Oklahoma State Board of Health approves the use of one of the following antiseptics to be applied to the eyes of the newborn at birth: sterile ophthalmic one percent (1%) solution of silver nitrate, sterile ophthalmic ointment, solution or suspension of tetracycline or erythromycin. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR OCTOBER, 1980

DISEASE	October 1980	October 1979	September 1980	Total To Date	
				1980	1979
Amebiasis	3	1	5	41	17
Aseptic Meningitis	14	11	4	54	103
Brucellosis	—	—	3	7	5
Encephalitis, Infectious	4	2	—	10	20
Gonorrhea (Use Form ODH-228)	1244	1412	1232	11696	11635
Hepatitis A	16	23	27	306	217
Hepatitis B	24	24	21	181	127
Hepatitis Unspecified	15	26	16	214	170
Malaria	—	1	—	12	5
Measles (Rubeola)	1	—	—	775	22
Meningococcal Infections	2	4	—	19	34
Pertussis	1	5	1	24	25
Rabies (animal)	27	22	9	223	243
Rocky Mountain Spotted Fever	4	8	3	62	59
Rubella	1	1	1	6	23
Salmonellosis	55	59	45	302	332
Shigellosis	21	34	30	207	207
Syphilis (Use Form ODH-228)	12	9	13	99	84
Tetanus	—	—	1	1	—
Tuberculosis	18	37	37	268	311
Tularemia	3	1	1	22	14
Typhoid Fever	2	—	1	6	—

## No Rate Increase for PLICO

Physicians in Oklahoma who are covered by OSMA's Professional Liability Insurance Company (PLICO) will not experience a rate increase this year, nor will they have an increase in their reinsurance rates.

"The secret of PLICO's success is in the cohesiveness of the Oklahoma State Medical Association and the tremendous participation in PLICO from the state's doctors," says Rod L. Frates, president of C. L. Frates Insurance Company.

Only three states in the nation have a loss experience in malpractice claims which is as low as Oklahoma's says Frates. He also said the decision in most other states for a rate increase is pending.

However, he pointed out some dangerous trends that could be emerging within the state. Frates cited the recent judgment in Tulsa which awarded 3.2 million dollars in a malpractice suit. He also pointed to the out-of-state insurance company that intends to offer claims-made policies to Oklahoma physicians. Claims-made policies appear to cost less because of the initial low premium. However, over a period of time, the cost of claims-made policies actually involve higher costs than the occurrence policy offered by PLICO. Claims-made also offers less protection.

While Oklahoma doctors have not experienced a rate increase from PLICO for malpractice insurance, there is another story at the national level. More than \$870 million have been paid nationwide by doctors during a three-and-one-half year period according to a report issued by the National Association of Insurance Commissioners. The report indicated that 72,000 claims had been filed against physicians, hospitals and other providers from July 1975 to December 1978. Sixty percent of all paid claims involved physicians while 31 percent involved hospitals. Losses by physi-

cians accounted for 71 percent of total indemnity payments and losses by hospitals accounted for 25 percent.

During the three-and-one-half-year period the average award increased 70 percent or from \$26,565 to \$45,187. The cost of defending malpractice suits rose 73 percent during that time.

## The Voluntary Effort Has a Setback

It's time again for another report on the Voluntary Effort to Contain Health Care Costs (VE). But this time it's not a success story. According to a newsletter issued by the American Medical Association VE has experienced a setback in its earlier trend of controlling health care costs. Despite the setback, the newsletter emphasized that VE is still too important to abandon cost containment efforts.

In response to the high rate increase VE's national steering committee has developed new criteria for immediate implementation. One of the criteria involves a nationwide effort to further inform physicians on the impact of their decisions to contain health care costs.

The VE was organized more than three years ago in order to bring health care costs under control. In 1978 and 1979 the American Medical Association, the American Hospital Association and the Federation of American Hospitals combined their efforts and successfully met the goals they had established to control health costs for those years. In 1980 business and industrial organizations joined in the effort too. But despite this additional help VE fell far short of its goal established for last year.

The rate of increase for hospital expenditures through the last of July had already risen to 13.1% after adjustments for inflation. VE's goal for the entire year was set at 11.8%. According to the AMA newsletter the gap is widening.

Additional information concerning the rate of increases for other health care costs include an 0.2 percent jump in physician services. Hospital room charges rose 1.0 percent in September which was above the rate of increase for the all-items category listed in the Consumer Price Index for that month. All items rose 0.9 percent and all services went up 0.8 percent. □



## Doctor Lynn Highlights His Highpoints

Thomas N. Lynn Jr., MD, has left his six-year post as dean of the College of Medicine at the University of Oklahoma Health Sciences Center in Oklahoma City. He is now vice-president of Medical Staff Affairs at Baptist Medical Center also in Oklahoma City. Doctor Lynn says his personal ambition in his new job is to achieve success. But he says he also enjoys the successes of others, a characteristic he said was necessary while presiding as dean of the OU medical school.

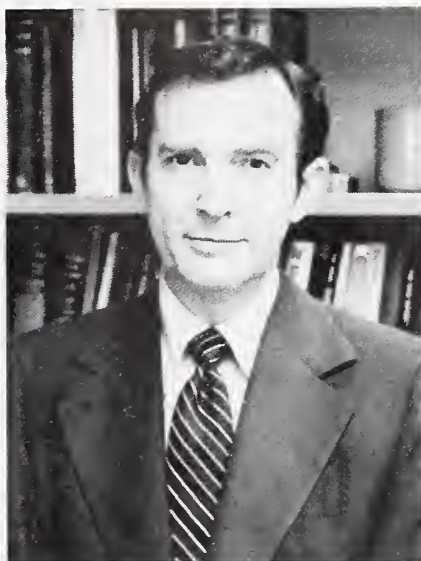
"A dean has no successes. Success belongs to the school, the departments, the faculty and the graduates," he said.

When Dr Lynn accepted his position as dean of the OU medical college in 1976 he said he was determined to help build the school's external relationships with various public groups as well as to help further develop the school from within its internal framework.

While striving to reach these goals, Dr Lynn said each day was filled with highpoints. In retrospect, he highlighted those events which he says reflect the highpoints of his career as dean.

Doctor Lynn says he is especially proud of the school's involvement in restructuring the state's residency program nearly five years ago. The number of residency positions was adjusted to correspond with Oklahoma's physician manpower needs. Consequently, the new program has helped to prevent a physician surplus in some of the medical disciplines that would otherwise have experienced one. Doctor Lynn pointed out that the concern in Oklahoma about physician manpower problems even preceded the nationwide concern indicated in a recent report issued by the Graduate Medical Education Advisory Committee (GMENAC). The report predicts a serious physician surplus across the country by 1990. Doctor Lynn suggested that Oklahoma's residency program could even serve as a model to other states in balancing their physician manpower needs.

Other events deemed by Dr Lynn as high-



Thomas N. Lynn, Jr., MD

## Physician Manpower: Nationwide and Statewide

The Graduate Medical Education National Advisory Committee (GMENAC) has issued a report which predicts an excess of 70,000 physicians across the nation by 1990. However, Thomas N. Lynn Jr., MD, points out some inaccuracies he says are in the report.

Lynn agrees with the report's conclusion that the nation is headed toward a serious physician surplus. However, in Oklahoma, he says the primary physician manpower

problem does not involve the number of doctors who are practicing in the state, but the distribution of them in rural areas and the kinds of practicing physicians available in those areas.

More than four years ago the Department of Health and Human Services (at that time it was known as the Department of Health, Education and Welfare) created GMENAC to study the country's physician manpower condition and to make recommendations that would help balance the nation's physician needs. The committee, composed of 21 professionals including 13 physicians, proposed more than 100 recommendations which were based upon their professional opinions and a sophisticated mathematical model.

Doctor Lynn says he agrees that unless some action is taken a serious nationwide physician-surplus could occur. But he also says it would be difficult to use the report in determining the actual amount of surplus because of at least two inaccuracies he says are included in the report. He says the report does not deal accurately with the recent trend toward an increasing number of women physicians. Doctor Lynn said that of the women who are now applying for medical school, a greater percentage of them are being accepted than their male counterparts. He also pointed out that at the OU medical school nearly 25 percent of the students are women. He said he expects this trend to continue growing across the nation.

A second factor which Dr Lynn says reduces the accuracy of the GMENAC predictions is that it does not adequately consider the

(Continued page 22)

(Continued page 22)



## **Doctor Lynn—** (Continued from page 21)

points in his career as dean include the establishment of stronger relationships between the school and various public groups. Doctor Lynn believes the school is experiencing a better relationship with the OU Board of Regents and the state legislature. Cooperation among these entities was vital in implementing the state's new residency program.

He also cited the alumni association for its cooperation with the medical college. During the early 1970's the alumni association assumed the college's previous responsibility of providing the salary for the association's director. In addition, Dr Lynn says the medical school's relationship with physicians throughout the state has improved. He illustrated this point by citing the Oklahoma State Medical Association for its voluntary effort to endow a fund for medical education.

Doctor Lynn also recognized some high-points from within the medical school's internal framework. He credits various departments for having achieved great success in upgrading their programs to a superior level. He also commends the medical school for its facilities.

"They represent some of the nation's best in medical architecture," he said.

Doctor Lynn said that despite the state's youthfulness and some of its earlier setbacks, the OU medical college has succeeded in becoming highly competitive at the national level for its opportunities in medical education. □

## **Physician Manpower—**

(Continued from page 21)

number of physicians who are beginning to work shorter hours.

In a report issued by the Association for Hospital Medical Education, Alvin R. Tarlov, MD, University of Chicago, chairman of GMENAC is cited for having said the four-year study had two clear gains. He said that it revealed the opportunity for cooperation between the medical profession and government, as well as developing needed methodology for judging physician supply and requirements. Doctor Lynn says the effect of the study has been good in that it has provided information that has forced people into realizing the need to take action against a nationwide physician surplus. But Lynn says he is concerned about

whether the federal government will now step in to pass legislation to govern the size of medical programs now that the GMENAC report has been completed.

In considering Oklahoma's physician manpower situation, Dr Lynn says the number of doctors who are practicing in the state is nearly balanced with the number needed to supply Oklahoma's medical needs. The only exception involves the state's shortage of psychiatrists. More than five years ago medical authorities advised the legislature to adjust the state's residency program to correspond with Oklahoma's physician needs. Cutbacks in the residency program in some of the medical disciplines have kept the state from experiencing a physician surplus in those areas. Lynn said nearly one half of the residents leave Oklahoma after their training, but that this number is usually replaced by almost the same number of incoming physicians from other states. He said he does not expect the number of residency positions to increase since they almost equal the number of medical graduates in Oklahoma. However, Dr Lynn pointed out that the combined number of medical graduates from all of the state's medical schools is slightly more than it probably should be.

Although Oklahoma is not facing an acute physician surplus problem, Lynn said the state does have a supply problem in the rural areas. He also says, however, that the situation has improved significantly. Lynn credits the improvement to several reasons. He says better practice opportunities are now available in rural communities because of the many doctors who have already established practices in metropolitan areas. He also said more doctors are practicing in rural communities because of the efforts of the Oklahoma Physician Manpower Training Commission. It offers matching funds to communities for medical students who agree to practice in a small community after graduation. It also provides scholarships to medical students who will agree to practice in communities with populations less than 10,000.

The most significant physician manpower problem in rural Oklahoma according to Lynn is the kind of physician available and not the number of doctors who are practicing in rural areas. Oklahoma's board of medical examiners indicates that an increasing number of physicians are beginning to filter into rural communities. However, some of these areas still do not have a sufficient variety of doctors. □

OKLAHOMA STATE MEDICAL ASSOCIATION



## Public Expresses Low Esteem of Medical Institutions

Researchers for the Chamber of Commerce of the United States have uncovered a survey which indicates a significant decrease in public esteem toward medical institutions.

The researchers reviewed numerous surveys conducted by various organizations in an effort to organize some educational programs for the Chamber's Special Projects Division. According to one of these surveys, a 1979 Harris poll, the public's confidence in medical institutions is declining. In 1966, the public's esteem in medical institutions is recorded to have been more than 70 percent. However, this figure fell all the way down to 57 percent by 1973. Just three years later, the declining trend dropped even further to 42 percent. In 1977, the figure increased for the first time since 1966. But in 1979, the Harris poll indicated that public confidence in medical institutions had fallen to an all-time low of only 30 percent.

This research was part of the Chamber's effort to develop Business and Economic Education (BEE) programs within its Special Projects Division. The programs are designed to serve as a national catalyst toward building public confidence in business and the business system, as well as in other institutions via two-way communication.

Richard L. Leshner, president of the Chamber of Commerce of the US says a primary goal of the Chamber for 1980 is to seek an economic, political and social system based upon individual freedom, initiative, opportunity, and responsibility. He says this kind of goal can be obtained through political and legislative influences coupled with an attainable vision. □

### OSMA 1981 ANNUAL MEETING

**May 7-10, 1980  
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ON GRAND LAKE**

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# Oklahoma State Medical Association Announces

Summer 1981

## Intrav Adventure Programs

The Oklahoma State Medical Association and INTRAV are pleased to offer these outstanding travel programs in 1981. On the British Isles and European Adventures, INTRAV will again be conducting Medical Seminars for Category II, CME credit. If you are interested in further details, please contact the Oklahoma State Medical Association office.

### British Isles Adventure

Departing Tulsa & Oklahoma City July 24, Returning August 4, 1981

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The Oklahoma State Medical Association sponsors tours to achieve the benefits of group travel for its members. Responsibility for the expenses of promoting and conducting the tours and seminars are fully borne by the company and its sub-contractors.



## Medical Assistants Unite To Advance Their Skills

"There just aren't enough hours in a day." Such a remark could easily become a regular statement made by many physicians because of their frequent tightly-fit schedules. Since there are only 24 hours in a day, efficiency becomes one



Mrs. Dorothy Albert

of the most significant tools a doctor can use in accomplishing his or her daily tasks. The efficiency of medical staff personnel also affect a doctor's daily schedule. In an effort to further advance the professional skills and efficiency of medical assistants, the Oklahoma Medical Assistants Association (OAMA) was organized nearly thirty years ago.

More than 275 medical assistants have united across the state in a movement to stay abreast with changing medical trends and to continue the development of their professional skills. Mrs. Dorothy Albert, Bartlesville, OAMA president, explained that the movement has since evolved into a tri-level federation involving county societies and a national association. Oklahoma now has nine county societies.

Mrs Albert says the primary focus at each of the movement's three levels is on a continuing education for medical assistants. Several educational opportunities are available through membership. Mrs Albert explained that most county and state meetings include a medical professional to inform the groups about current medical trends or other medically-related topics. She added that the annual convention of the American Association of Medical Assistants (AAMA) also offers educational activities.

Another device which is available to medical assistants for increasing their skills is the American Association of Medical Assistants Certification Examination. The test is issued by schools within each state which have been accredited by the AAMA. It is designed to help members increase in their knowledge and skills for clinical and administrative duties. The examination is not a requirement for membership in any of the medical assistant associations, but Mrs Albert urges Oklahoma members to take the test. She said much can be learned during the preparation for the exam.

The AAMA provides home study programs for medical assistants in order to help them prepare for the exam.

Any employee who is under the supervision of a physician is eligible for membership in the OAMA. Nurses, secretaries, lab technicians and others fall into this category. Membership in the state association also qualifies an individual for membership at the county and national level. Membership dues are approximately \$25, which includes the yearly fees of all three organizations. □

## CALENDAR OF EVENTS

### January 30

Diagnosis & Management of Cardiac Arrhythmias, 12:30 PM to 4:45 PM, Marian Hall Auditorium, St Anthony Hospital, 1000 N. Lee, Oklahoma City, 231-1811, ext 2195. No registration fee.

### February 27-March 1

OSMA Leadership Conference, Sheraton Century Hotel, Broadway & Main, Oklahoma City.

### May 7-10

OSMA Annual Meeting, Shangri-La, Afton, Oklahoma.

### June 7-11

The 1981 American Medical Association (AMA) annual meeting will be conducted June 7-11 in Chicago, Illinois.

### December 6-9

The interim meeting of the American Medical Association (AMA) is scheduled for December 6-9 in Las Vegas.

Physicians are encouraged to use the OSMA Calendar of Events to list medically-related meetings or events that would be of interest to doctors throughout the state. Information for the calendar should be submitted two months in advance. Contact *The Journal*, Oklahoma State Medical Association, Oklahoma City, 405 843-9571. □

## Book Reviews

**Basic and Clinical Immunology**, Edited by H. H. Fudenberg, D. P. Stites, J. L. Caldwell, and J. V. Wells, Lange Medical Publications, Los Altos, California, 653 pages, 1976, price \$12.50.

This is a paperback book representing one of the well known publications of Lange Medical Publications. It is divided into four sections: basic immunology, immunobiology, laboratory methods and clinical immunology. The latter is divided into fourteen chapters each dealing with a different organ system and the immunologic aspects of disease in that organ system. The basic immunology and immunobiology sections contain adequate summaries of our present understanding of basic immunology. Of particular usefulness to the non-immunologist is a glossary of terms, acronyms and abbreviations used in immunology. A noteworthy feature is the brief interval between the appearance of the majority of the references and the publication of this book.

This is an excellent reference. If the authors are successful in realizing the objective of updating it every two years it will be even more useful. *Harris D. Riley, Jr., MD* □

**Manual of Clinical Immunology**, edited by N. R. Rose and H. Friedman, 932 pages, Washington, D.C., The American Society for Microbiology, 1976, price \$16.00 (paper) \$20.00 (cloth).

A few years ago the American Society of Microbiology published "Manual of Clinical Microbiology." This proved to be very successful and the present publication represents a companion effort. The editors have coordinated the efforts of some 200 contributors with assistance from an editorial board. It contains a very satisfactory overview of the field of clinical immunology. The book is divided into eleven sections which deal with tests for cellular immunity, humoral immunity, bacterial, mycotic, and parasitic serology, immunohematology, tests for immunodeficiency and for allergic disorders, autoimmune diseases, transplantation, immunology, tumor immunology and other topics. The references are up-to-date and pertinent. As might be expected no single book can cover everything in depth in this fast moving field. However, this volume provides authoritative information about a wide range of immunologic procedures and disorders. It will be a valuable reference for laboratory directors, medical technologists and clinicians. *Harris D. Riley, Jr., MD* □

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FRANKLIN D. SINCLAIR, MD  
1905-1980

Tulsa obstetrician and gynecologist, Franklin D. Sinclair, MD, died November 16, 1980. Doctor Sinclair was graduated from Johns Hopkins University Medical School in 1930 and established his practice in Tulsa in 1934. He was a Fellow of the American College of Surgeons and the American College of Obstetricians and Gynecologists and a member of the Central Association of Obstetricians and Gynecologists. In 1977 the Auxiliary to the Tulsa County Medical Society named Doctor Sinclair Tulsa's Doctor of the Year. He was a Life Member of the OSMA.

WALTER E. SETHNEY, MD  
1912-1980

Tulsa peditrician, Walter F. Sethney, MD, died October 14, 1980. Doctor Sethney was a native of Menominee, Michigan and was graduated from Columbia University College of Physicians and Surgeons. He came to Tulsa in 1946 where he was instrumental in establishing a poison control center and volunteered hundreds of hours of his technical services to groups such as the Boy Scouts, Children's Medical Center, the Salvation Army Home, etc. In 1978, he was named Doctor of the Year by the Auxiliary to the Tulsa County Medical Society. He was a Life Member of the OSMA and affiliated with the Alpha Sigma Phi.

JOHN M. PARRISH, JR., MD  
1910-1980

John M. Parrish, Jr., MD, Oklahoma City gynecologist, died November 8, 1980. A native of Halls, Tennessee, Dr Parrish was graduated from the University of Tennessee College of Medicine in 1934. His practice was established in Oklahoma City in 1941. For over 25 years he served on the faculty of the University of Oklahoma Health Sciences Center. He was certified by the American Board of Obstetrics and Gynecology; was a Fellow of the American College of Surgeons and the American College of Obstetrics and Gynecology.

RALPH D. NEPVEUX, MD  
1947-1980

Ralph R. Nepveux, MD, Oklahoma City anesthesiologist, died October 19, 1980. Born in McAlester, Oklahoma, Doctor Nepveux was graduated from the University of Oklahoma College of Medicine in 1975. He was an assistant professor of anesthesiology at the University of Oklahoma Health Sciences Center and a member of the American Society of Anesthesiology and the Oklahoma Society of Anesthesiology.

LEE PULLEN, MD  
1913-1980

Lee Pullen, MD, semi-retired Waurika physician, died October 6, 1980. A native of Freehold, New Jersey, Doctor Pullen was graduated from Hahnemann Medical College and Hospital, Philadelphia in 1940. His practice was established in Waurika in 1953. Doctor Pullen was a diplomat of the American Board of Abdominal Surgery.

H. K. SPEED, MD  
1884-1980

Oklahoma State Medical Association Past-President, H. K. Speed, MD, died November 17, 1980. Doctor Speed, 96, a native Texan, was graduated from the University of Texas Medical Branch, Galveston in 1906. His practice was established in Sayre, Oklahoma in 1907. He became active in many civic and medical affairs. His activities included eight years on the OSMA Council and one year as Speaker of the OSMA House of Delegates. As president of the OSMA in 1938-39 Doctor Speed appointed the first full-time secretary of the association. He also appointed the first director and 12 members of the Oklahoma State Board of Health. He was a Life Member of the OSMA.

JOEL T. WOODBURN, MD  
1902-1980

Muskogee ophthalmologist Joel T. Woodburn, MD, died in Oklahoma City November 18, 1980. Doctor Woodburn was a native of Parson, Kansas and was graduated from Washington University School of Medicine in 1928. His

practice was established in Muskogee in 1932. He had retired from active practice in 1975. Doctor Woodburn was a Fellow of the American College of Chest Physicians and a Life Member of the OSMA.

## IN MEMORIAM

1980

<i>Alvin R. Jackson, MD</i>	<i>January 2</i>
<i>Johnny A. Blue, MD</i>	<i>January 31</i>
<i>Merle L. Whitney, MD</i>	<i>February 4</i>
<i>Donald D. Lensgraf, MD</i>	<i>March 3</i>
<i>Charles H. Eads, MD</i>	<i>March 8</i>
<i>Ollie McBride, MD</i>	<i>March 10</i>
<i>Paul C. Gallaher, MD</i>	<i>April 20</i>
<i>Ennis M. Gullatt, MD</i>	<i>April 26</i>
<i>John E. Highland, MD</i>	<i>April 28</i>
<i>H. Violet Sturgeon Minton, MD</i>	<i>April 29</i>
<i>Elton W. LeHew, MD</i>	<i>May 3</i>
<i>C. W. Arrendell, MD</i>	<i>May 6</i>

<i>Edward A. Abernethy, MD</i>	<i>May 9</i>
<i>William F. Thomas, Jr., MD</i>	<i>May 17</i>
<i>Robert C. Lawson, MD</i>	<i>May 17</i>
<i>Robert L. Lembke, MD</i>	<i>June</i>
<i>Joseph Fulcher, MD</i>	<i>July 2</i>
<i>Emmett O. Martin, MD</i>	<i>July 15</i>
<i>James R. Colvert, MD</i>	<i>July 22</i>
<i>Thomas J. Hardman, MD</i>	<i>July 24</i>
<i>Kelly M. West, MD</i>	<i>July 28</i>
<i>Tom S. Gafford, MD</i>	<i>August 4</i>
<i>Joseph J. Swan, MD</i>	<i>August 25</i>
<i>Milton J. Serwer, MD</i>	<i>August 28</i>
<i>Henry B. Jenkins, MD</i>	<i>August 28</i>
<i>I. F. Stephenson, MD</i>	<i>September 7</i>
<i>Emory E. Beechwood, MD</i>	<i>September 9</i>
<i>Paul B. Champlin, MD</i>	<i>September 17</i>
<i>Bernard Brock, MD</i>	<i>September 25</i>
<i>Lee Pullen, MD</i>	<i>October 6</i>
<i>Walter E. Sethney, MD</i>	<i>October 14</i>
<i>Ralph R. Nepveaux, MD</i>	<i>October 19</i>
<i>John M. Parrish, MD</i>	<i>November 8</i>
<i>Franklin D. Sinclair, MD</i>	<i>November 16</i>
<i>Henry K. Speed, MD</i>	<i>November 17</i>
<i>Joel T. Woodburn, MD</i>	<i>November 18</i> □

## Miscellaneous Advertisements

**WANTED:** OKLAHOMA-CERTIFIED PSYCHIATRIST for one day per week consultation in southeastern Oklahoma. Good opportunity for broadening experience. Contract to be negotiated for mutual benefit. Contact Clinical Director, 14 "K" Street, S.W., Ardmore, OK 73401; 405 223-5070. Equal opportunity employer.

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**ONE CORNING MODEL 165 BLOOD-GAS ANALYZER** for sale. This instrument measures pH, pO<sub>2</sub>, pCO<sub>2</sub>, calculates HC0<sub>3</sub><sup>-</sup> and total CO<sub>2</sub>. Instrument is five years old, recently reconditioned and in excellent operating condition. Price \$2,000. Contact Bob Jamison, Bethany General Hospital, 405 787-3450, ext. 250. □

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## Blessed Surplus

When and if this nation develops a surplus of physicians — as is predicted — it will be interesting to see what happens to all the programs and policies which have been predicated on the shortage of physicians. The Physician Associate and Nurse Practitioner programs in particular will be difficult to justify. State laws which permit pharmacists to prescribe drugs, and extend to other non-physician health personnel license to engage in the practice of medicine will also be virtually indefensible.

As non-urban areas of our country become saturated with primary- and specialty-care physicians and facilities, there will be an appreciable decline in the need for emergency medical transport vehicles equipment and the trained personnel now essential to their operation and maintenance. Also, the elaborate and expensive communication networks currently being promoted to dispatch and coordinate the elements of this system, in the air and on the ground, will become superfluous.

Many other policies and practices which have corrupted health care in this nation for the past thirty years should disappear promptly and permanently. The active military services should be able to attract adequate numbers of physicians and never again promote a doctor-draft. Foreign medical graduates should no longer be essential to the operation of our state and county hospi-

tals and thus be free to remain in their own countries where their services are desperately needed. Government and community health councils and committees and programs and boards should be able to have adequate numbers of physicians on their rosters and eliminate the practice of relying on the guidance of consultants or uninformed laymen. Nursing homes could be required to maintain staffs of physicians to assist in the care of their patients and maintain high levels of professional supervision. Assembly-line practices and no-talk, no-touch, computerized patient-evaluations can be replaced by the traditional physician-performed history and physical examination wherein the physician gets acquainted with and actually talks to his patients.

A surplus of physicians should also make it possible for patients to be seen on short notice with little or no time wasted in waiting rooms or in conducting long, detailed telephone conversations. Every physician should have time to visit with his patients, to read journals, textbooks, magazines and novels; to attend selected meetings and seminars, to spend time with his family, to pursue a hobby, to get more sleep.

Sounds wonderful. We hope it all comes to pass. We will enjoy the countless benefits of a physician surplus as much as we enjoy the benefits of the great surplus of hospital beds we are told exists in this country.

And we all know how easy it is these days to get hospital beds for our patients. Simple as ABZ.  
*MRJ*

Your OSMA-owned insurance carrier — the Physician's Liability Insurance Company — has just concluded a most successful inaugural year as the association's answer to the problem of providing a stable source of high-quality professional liability insurance for our membership.



Assets are nearly \$5 million and are expected to double in 1981. Loss experience is within expected parameters — and management is experienced, cost-efficient and capable. Our insurance policy is of the preferred "Occurrence" type and its "fine print" offers the broadest of coverage interpretations.

Now comes a would-be spoiler, the St. Paul Fire & Marine Insurance Company, which hopes to introduce a "Claims Made" malpractice insurance policy into Oklahoma in 1981. This type of insurance is grossly inferior — a kind of coverage the OSMA has been trying to protect its membership from since St. Paul invented the concept in 1975. Without going into all comparative intricacies, suffice to say that the physician who switches from PLICO to the "Claims Made" policy will be short on coverage, long on expense, and sadder for the experience.

Ironically, PLICO was formed by your association to avoid exploitation and to maintain a high quality insurance program. St. Paul's policy runs counter to both purposes.

Although millions of premium dollars were saved by the OSMA through the contractual sponsorship of a commercial carrier over a 30-year period, our experience during the last decade has been one of year-to-year disputes over rate increases which were "negotiated" under the hammer of declining insurance availability. A key factor in our decision to form PLICO was the 32.6 percent rate hike demanded in 1978 by our former carrier. This cost our members an additional \$1.6 million in premiums, and since we did not have the PLICO alternative at the time, physicians had to either pay-up or go uninsured.

To the best of our knowledge, PLICO pre-

mium rates are the nation's lowest for the high-quality "Occurrence" policy form which has always been available to our members. If a major commercial carrier should decide to sell a policy of comparable quality in Oklahoma today, its rates would be 200 to 400 percent higher than PLICO's, as evidenced by the "industry" rates which are currently on file at our State Insurance Department.

St. Paul does not intend to compete on the same level with PLICO, however. Instead, its "Claims Made" concept features a "low-ball" first-year premium which would be pre-programmed to escalate annually over the next four years. At the end of this step-rating period, the St. Paul coverage is estimated to cost twice the price of PLICO's for about one-third as much protection. The deceptive first-year price "advantage" would be more than lost to the physician in the second year, and PLICO's savings will grow as St. Paul continues with its scheduled yearly increases.

OSMA and St. Paul are not strangers. Your association endorsed this company's policy from 1952 through 1966, when it was written on an "Occurrence" basis. The arrangement was terminated in conflict over a series of premium increases which were not justified by loss experience. In the transition, St. Paul retained only about 200 insured physicians, who in time were paying about twice the premium charged by the succeeding OSMA-endorsed carrier. St. Paul dumped these doctors in 1976 when the State Insurance Department refused to let the Minnesota company downgrade its coverage to "Claims Made."

St. Paul has now gained conceptual approval to market the cheapened policy in Oklahoma — so it's "Buyer Beware" time.

For my money, and for my insurance needs, PLICO is clearly the right choice between two extremes. PLICO is already a proven premium saver . . . it is on solid financial footing . . . it provides quality protection . . . and it is governed by those you know and trust.

Our new insurance company is a natural extension of the OSMA's purpose . . . to solve problems common to our individual members through the collective resources and action of the association.

Please join me in a united commitment to PLICO's continuing progress — and to its great promise for the future.



# Seminar On Antibiotics VI

## The Tetracyclines

EVERETT R. RHOADES, MD

*Tetracyclines are versatile, inexpensive antibiotics with a number of important applications, especially for outpatient use. Attention to problems relating to intestinal absorption is important.*

### INTRODUCTION

Tetracyclines, as the name implies, are compounds containing four ring structures. First introduced in 1948, they have proved to be of value in the treatment of infections caused by a variety of organisms. Substitutions of various ions at one of several points on the molecule alter pharmacologic properties but do not modify the antimicrobial spectrum to any significant degree; hence, the spectrum of activity is nearly the same for all tetracyclines. Some examples of tetracyclines are shown in Table 1.

More than any other antimicrobials, tetracyclines possess a variety of pharmacologic activities separate from their antimicrobial actions. (Table 2) Some of these, such as the staining of teeth, are clinically important, others less so. Tetracyclines are effective

chelating agents with an affinity for divalent cations such as  $Ca^{++}$  and  $Mg^{++}$ . This affinity effectively blocks the intestinal absorption of tetracyclines. The fluorescence and the accumulation in malignant cells have been used to develop screening tests for cancer. More recently, attempts have been made to use tetracyclines to study myocardial infarction, utilizing their concentration at sites of myocardial injury. Demeclocycline has been used in the treatment of inappropriate ADH syndrome because of its production of nephrogenic diabetes insipidus. At least part of the benefit of tetracycline in acne may arise from its effect on fatty acids of the skin rather than from a direct action on microorganisms.

Table 1

### SOME TETRACYCLINES

Generic Name	Trade Name
Chlortetracycline	Aureomycin
Oxytetracycline	Terramycin
Tetracycline	Achromycin, Tetracyn, Panmycin
Demeclocycline	Declomycin
Methacycline	Randomycin
Doxycycline	Vibramycin
Minocycline	Minocin
Tetracycline phosphate	Tetrex

Table 2

**Tetracyclines**  
**Some Non-Antimicrobial actions**

1. Concentration in proliferating connective tissue.
  - a. results in staining of developing teeth and deposition in growing bone.
2. Concentration in certain malignant cells.
  - a. This feature along with fluorescence is the basis for a number of screening tests for the detection of cancer.
3. Depletion of body ascorbic acid by increasing renal excretion.
4. Benign intracranial hypertension and "pseudotumor cerebri."
5. Concentration at sites of myocardial ischemia.
6. Diabetes insipidus associated with demeclocycline.
7. Catabolic effects.

## MECHANISM OF ACTION

The major effect of tetracyclines is that of inhibition of protein synthesis at the ribosome. The drug binds to both messenger-RNA and to the ribosome but the latter seems to be of more consequence. The binding is to the 30-S fraction and is reversible to a large degree. Thus it is a very efficient inhibitor of protein synthesis. Other effects of unknown significance that have been observed are inhibition of oxidative phosphorylation and glucose oxidation.

**INSTRUCTIONS FOR TAKING**  
**TETRACYCLINE**

- (1) Must be taken on an empty stomach. Food interferes with this medicine. The medication must be taken one hour before or two hours after meals.
- (2) Milk also interferes with the medication. Only take the medication with water or juice. You may have milk with a meal.
- (3) Antacids (Alka-Seltzer, Maalox, Wingel, Mylanta, etc) should not be taken while on medication, if possible. When necessary, the tetracycline should be taken 1 hour before or 2 hours after the antacid.
- (4) If you are pregnant or suspect being pregnant please call your physician before taking this medication.
- (5) Some common side effects of the medicine are: Nausea, vomiting, diarrhea, heartburn and abdominal cramping. Continue taking medicine unless side effects are severe, in which case you are to notify your physician and stop taking the medicine.

## PHARMACOLOGIC CONSIDERATIONS

The overriding factor relating to pharmacology of tetracyclines is its binding by food and divalent cations. More than any other antibiotics these drugs must be taken on an empty stomach in order to achieve any blood level after oral administration. Even when taken on an empty stomach, the absorption of the earlier tetracyclines is not great. Recent tetracyclines are absorbed better and this fact, coupled with decreased excretion rates, greatly increases

Table 3

**TETRACYCLINES**  
**SOME PHARMACOLOGIC PROPERTIES**

	<b>TETRA- CYCLINE</b>	<b>DEMECLO- CYCLINE</b>	<b>DOXY- CYCLINE</b>	<b>MINO- CYCLINE</b>
USUAL ORAL DOSE	250-500 mg Q.I.D.	150-300 mg Q.I.D.	100 mg Q 12 h 1st day; then 100 mg/day	200 mg 1st dose, then 100 mg Q 12 h
USUAL IV DOSE	250-500 mg Q 12 h		200 mg 1st day, then 100-200 mg/day	200 mg 1st dose, then 100 mg Q 12 h
PERCENT ABSORBED AFTER ORAL DOSE (Empty Stomach)	77	66	93	100
HALF-LIFE (HR)	6-8	12	16	18



Table 5

## INDICATIONS FOR TETRACYCLINE USE

Often Drugs of First Choice	Good Second Choice	Should not be used
Plague (may combine w/streptomycin)	Chancroid	Pneumococcal, streptococcal or staphylococcal diseases
Brucellosis	Tularemia	Endocarditis
Cholera	Gonorrhea(*)	Meningitis
Rickettsial Infections	Leptospirosis	
Mycoplasmal Infections	<i>Hemophilus influenzae</i> (in respiratory tract)	
Chlamydial Infections		
Acne		
Certain Malabsorption Syndromes		
Chronic bronchitis		
Urinary Tract Infections		
Phrophylaxis, Traveller's diarrhea (doxycycline)		

\*Actually equivalent to penicillin

serum levels. Patients should be cautioned about taking tetracyclines with milk and antacids. A warning against concomitant use of antacids and tetracyclines appears on the label of some over-the-counter antacids. Tetracyclines are excreted by both kidneys and liver; in the latter instance they are concentrated in the bile. Varying amounts are excreted trans-mucosally into the gut. Considerable amounts are found in the stool.

Some pharmacologic properties of tetracyclines are shown in Table 3. The longer half-life of demeclocycline, doxycycline, and minocycline permit once-or-twice-daily dosage which undoubtedly, increases patient compliance. The relative lack of effect of the presence of food on the intestinal absorption of doxycycline gives it some advantage over the others. The disturbance of equilibrium experienced by many patients taking minocycline severely limits its use. One approach to the problem of oral administration of tetracycline is to

have a set of instructions for patients' use. An example of such instructions is shown in Table 4.

## CLINICAL USES

A summary of the antimicrobial uses of tetracyclines is presented in Table 5. They should be considered drugs of choice in the treatment of rickettsial and chlamydial infections. In addition, they are very effective in treating plague, mycoplasmal infections, brucellosis, chronic bronchitis, urinary tract infections and as prophylaxis for traveller's diarrhea. Tetracyclines are as effective as penicillin for the treatment of gonorrhea.

They are not ordinarily useful for the treatment of pneumococcal, streptococcal or staphylococcal infections, meningitis, or endocarditis.

Table 6

## TETRACYCLINE SIDE EFFECTS

Allergy:	Rash, urticaria, anaphylaxis, angioneurotic edema
Skin:	Photosensitivity, rash
Gastrointestinal:	Nausea, vomiting, diarrhea
Hepatic:	Abnormal liver function tests; may be fatal in pregnancy
Renal:	Azotemia, Fanconi syndrome (with degraded drugs), diabetes insipidus (with demeclocycline)
Teeth:	In first 5 years of life; staining and dysgenesis
Metabolic:	Catabolic state, azotemia
Other:	
Suprainfection:	CSF hypertension, vertigo (minocycline)

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## *Tetracyclines* / RHOADES

### SIDE EFFECTS

Not surprisingly, tetracyclines possess a number of side effects. The most common is gastrointestinal distress. Because of the discoloration associated with deposition in teeth, special care should be given to administration of tetracycline to children and should be avoided if possible. They should likewise not be given to pregnant women unless absolutely mandatory. The side effects of tetracyclines are summarized in Table 6.

### SUMMARY STATEMENT

Tetracyclines are versatile, inexpensive an-

tibiotics with a number of important applications, especially for outpatient use. Attention to problems relating to intestinal absorption is important.

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A COMBINATION OF SCIENTIFIC STUDY AND RELAXATION.



# Psychiatry and Medicine: 1980

JAMES R. ALLEN, MD

*Three major and perhaps incompatible world-views undergird current concepts of medicine, and more particularly, our current concepts of "holistic medicine." These are: (1) the spectator-spectacle worldview and its logical extension; (2) the super-naturalistic world-view and (3) a general systemic world-view. Only the latter is compatible with current knowledge.*

The "return of psychiatry to medicine" has been heralded, in some psychiatric quarters, as one of the major events of the 1980's. However, the medicine to which psychiatry returns is not, I believe, the medicine of our memories. While psychiatry is moving closer to the rest of medicine, the rest of medicine also seems to have moved closer to psychiatry.

In his influential study of medical education 70 years ago, Flexner advocated mastery of the scientific method and its application to all dimensions of medicine.<sup>1</sup> His recommendations were interpreted in a very narrow way, a way which has emphasized unifactorial etiology,

physiochemical explanations and mind-body dualism.

This particular version of the "medical model" seems to have evolved, at least in part, from a concession made to Christian orthodoxy. The Church's permission to study the human body intact included a tacit interdiction against the corresponding investigation of man's mind and behavior. It coincided with the development of the basic principles of post-Renaissance science. As advanced by Galileo, Descartes and Newton, these principles were analytical and utilized a linear model of cause and effect. This fostered a metaphor of the body as a machine, and a conceptualization of disease as a consequence of breakdown in that machine.

Our current preoccupation with the biological mechanisms of disease to the exclusion of psychosocial factors is best understood as an undesirable side-effect of this scientific revolution. It has contributed much to our therapeutic powers, and therefore has come to dominate our professional ideology, but at a cost, for it creates profound misunderstanding when misapplied. "True believers" in psychiatry today contend that we should concentrate on "real disease" and not get lost in the psychosocial underbrush. Others such as Engle,<sup>2,3</sup> himself an internist, contend that not just psychiatry but all medicine is in a crisis which derives from the fact that we adhere to a model of disease which is no longer adequate even for internal medicine — let alone mental health!

Keynote address, Oklahoma State Branch of the American Psychiatric Association Annual meeting, Tulsa, April, 1980.

Physicians are often ill-prepared to cope with symptoms which are no less "real" for being psychosocial in origin. Grief, for example, has not usually been considered in the framework of disease. Yet, many grieving people consult physicians because of their somatic symptoms. When does grief become a disease?

It is ironic that those who dismiss many psychiatric disorders as "mere problems in living" and therefore ill-suited for medical management, do so by attributing other medical disorders to "pure" biological causes. Surely, the sensitivity to psychosocial matters of the physician who cares for the schizophrenic patient is no less fundamental for the one who cares for the patient with hypertension. The hypertensive patient, no less than the schizophrenic, has feelings and ideas about his illness and is responsive to familial and social pressures. The mere prescription of medication, exercise and diet provides no assurance of improved outcome; in fact, the chances are great that the patient will not take his medication and follow his treatment regimen unless they make sense to him in terms of his understanding of his illness, unless his aims and those of the physician are seen as congruent, and unless the impact on his daily routines is compatible with his lifestyle.<sup>4</sup> His relationship with his physician may influence his medication requirements. It certainly will influence whether he takes the medication at all! Thus, the role of the family physician or internist is little different from that of the psychiatrist in the need to be cognizant of psychosocial factors and interpersonal relationships and to be sophisticated in the use of community resources. The physician's role includes, and always has, that of educator and psychotherapist.

The integration of psychodynamic, sociocultural and behavioral approaches into the physician's thinking about patients is not in opposition to standard and essential steps in biomedical diagnosis, but rather is an extension of that practice. It opens additional avenues to the understanding and management of the complaints which brought the patient to treatment. Rational treatment directed to biochemical indices alone will not necessarily restore the patient to health, even in the face of documented correction of biochemical abnormality. The caricature of this phenomenon is to be found in "Munchausen Syndrome."

Flexner himself nowhere implied that "scientific study" was to exclude the patient. He noted, "The physician's function is fast becoming social and preventive rather than just individual and curative. Upon him society relies to make certain and through measures essentially educational to enforce the conditions that prevent disease and make positively for physical and moral well-being."<sup>5</sup> "The scientific character of the procedure depends not on where or by what means facts are procured . . . The essence of sciences is method — the painstaking collection of all relevant data. The severe effort to read their significance in connection . . . The way to be unscientific is to be partial — whether to the laboratory or to the hospital, it matters not."<sup>6</sup> It is difficult not to conclude that Flexner's report remains to be fully implemented. This does not minimize the enormous impact the report did have on the development of medical education, but rather is a reminder that we have reason to be humble.

Two thousand years ago, Hippocrates of Cos, whose oath many physicians still take, taught that no physician, however, skilled in detecting bodily dysfunction, could provide adequate treatment without an awareness of the patient's personality and interpersonal relationships, and of environmental precipitants. In the first chapter of his *Precepts*, he attributes illness not only to organic causes, as did the exclusively organic school of Knidos, but also to "excessive indulgences or repressions of appetites (Freudian fixation) — disappointments in love and war (grief and the 'giving and given up' syndrome of the Rochester group) — sustained tension in the race for fame and fortune ('Type A personality') — and fear and superstitions." The Hippocratic "medical model" was not just biomedical!

Of the forces which impose upon us as we enter this new decade, three deserve particular recognition:

1. Lifestyle and physical illness

Five of the six leading causes of death in the United States today (disease of the heart and blood vessels, cancer, accidents, cirrhosis of the liver and diabetes mellitus) are related to lifestyle, as are the major causes of disability (cardiovascular disease, chronic obstructive pulmonary disease and accidents). Over the last three decades, the United States invested an unprecedented portion of national resources in the study and care of diseases, but the health



and longevity of Americans during that time did not show commensurate improvement.<sup>7, 8</sup>

The most important diseases today seem caused by a variety of factors. Of these, some of the most significant seem to be personal and social habits, such as improper diet, drug abuse, lack of exercise, environmental pollution, and unsafe driving and working conditions. Fortunately, the most effective preventive measures seem those which require the least personal effort, as in the case of public-health management of water, sewage, food, and fluoridation. More difficult to institute are those in which the individual himself is responsible.

According to current estimates 55 million Americans smoke cigarettes. Forty million are overweight, 15 million being 30% or more overweight. Nine to ten million Americans drink excessively. Half of our diets are deficient in one or more of the basic nutrients. The serum cholesterol of 20% of American adults exceeds 260 mg/100 ml. Half of the population make appointments with physicians and do not keep them.<sup>9-11</sup>

Health education has been the chief tool of the general medical sectors' response to these lifestyle traps. Unfortunately, health-care education seems more effective in raising awareness and motivation than in assisting people who are motivated to change and sustain these changes.<sup>12</sup> Commonly prescribed drug treatments and traditional psychiatric approaches have proved inadequate, a fact which has led to many physicians' reluctance even to encourage lifestyle change.<sup>12-14</sup> The techniques which seem to offer the greatest promise of effective meaningful change are behavioral techniques based on social learning theory.<sup>15-17</sup> These approaches use three broad strategies: Stimulus control, reinforcement control and self-control. Stimulus control involves rearranging the social and physical environment to reduce cues and temptations for health-destructive behaviors, and mobilizing social support for behavioral change and helpful alternatives. Self-control emphasizes personal responsibility. It would seem that these should occupy a major place in today's medical curricula. They do not.

About 50% of patients do not take their drug prescriptions as directed, and these errors and omissions create a serious health threat in an estimated 44% of the patients.<sup>18</sup> Hypertension, for example, is estimated to cause approximately 60,000 deaths in the United States an-

nually, in part through its role in 1,500,000 heart attacks and cerebrovascular accidents. Only about half of approximately 11,000,000 people identified as having hypertension comply with hypertensive regimens, despite the fact that the drug control can be accomplished in 80-85%.<sup>19, 20</sup>

The primary determinates of non-compliance are situational, involving the characteristics of a regimen (the greater the complexity, the higher the rate of non-compliance), the characteristics of the disease (the non-compliance rate is higher for asymptomatic and chronic illnesses than for acute illnesses), and the doctor-patient relationship (the non-compliance rate is lower if there is continuity of care, physician empathy and warmth). In their review of 250 studies comparing educational, behavioral and combined education-behavioral approaches, Sackett and Haynes<sup>19</sup> concluded that the educational strategies are consistently less effective than behavioral combined strategies, incorporating stimulus control, the tailoring of drug regimen to the patient's daily life and the utilization of contingency contracting, social support and encouragement.

## 2. Primary-care

Primary-care providers have been accorded priority in evolving national health policy. Of the 15 percent or so of the population who suffer from mental disorders each year in the United States, four times as many are treated by primary care-givers as by mental-health specialists. In addition, primary-care physicians play a major supportive role for patients coping with "problems in living."

Recent studies report the prevalence of psychiatric disorders in general medical practice as between 88 and 4%.<sup>21-27</sup> The vast majority report a rate between 20% and 4%, the var-

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iations reflecting differences in the criteria used to identify psychiatric morbidity and the particular setting in which the studies were conducted. Despite this variability, the majority of recognized psychiatric disorders encountered in general medical practice are not "mere problems in living." Blumenthal and Dielman<sup>28</sup> for example, found that the depressions treated by primary-care providers profoundly affect the ability of these patients to perform major role functions. In terms of medical resources, these patients make about twice as many visits to the physician as those without psychiatric disorders and require more general medical services such as x-rays, and laboratory tests than other patients.<sup>23, 29, 30</sup> In addition, the treatment of these patients often places an emotional burden on non-psychiatric physicians, who report that they feel inadequately trained to treat them.<sup>31</sup>

It is unfortunate that we lack good basic descriptive data—even a simple record of what and how much is currently being done by whom. Unfortunately, the federal government has encouraged expansion of the primary-care sector and an accompanying reduction of the specialty mental-health sector without an authoritative major study to guide its efforts. Formal psychotherapy, however, is reported to be utilized in 2% of all visits to non-psychiatric physicians. Because of the large number of patients seen by this group, this amounts to 27% of all the time devoted to psychotherapy.<sup>32</sup>

The importance of the primary-care physician in the delivery of mental health services is likely to increase. Fewer medical-school graduates are choosing psychiatry as a specialty and strict, new federal regulations have closed the doors to the foreign medical graduates, who traditionally filled half the positions in the public mental hospitals. In addition, psychiatric manpower is poorly distributed, both in terms of geography and in terms of social economic access. Finally, the deinstitutionalization movement spurs the return of state-hospital patients back into the community—and if they are lucky—into the care of a primary physician.

### 3. Changing patterns of health-care delivery

During the past 15 years, there has been a stream of studies describing the changing status of health services and medical education in this country. The Coggeshall report in 1965, the report on the Graduate Education of Physi-

cians in 1966, the Health Manpower Report of 1967, the Carnegie Commission report of 1970, the Millis Report of 1971, and the Health Professions Assistance Act of 1976 produced a substantial amount of evidence upon which to base recommendations for improving training as well as the delivery systems of the health sector.<sup>33-37</sup>

While psychiatry's most prodigal son, community psychiatry, has had its slogans, it also has had its substance, and it has been a precursor of a number of the trends which are changing the shape of health as well as mental health care. It was a laboratory for consumer participation and citizen involvement, for community linkage and multidisciplinary treatment teams, increased sensitivity to "non-medical" influences on behavior, the primary care emphasis on longitudinal responsibility, the integration of the physical, social and psychological aspects of health as well as for accessibility and coordination. Topics such as crisis stabilization, the role of coping mechanisms and support groups, care of the dying and the grieving, and the importance of prenatal nutrition and early mother-child bonding are now part of general medical knowledge and, as such, are rapidly becoming part of the undergraduate curriculum. The real success, however, is that these topics are no longer necessarily taught by psychiatrists or mental-health workers. Like good consultants or good parents, we have been most successful when we no longer are needed.

Following the lead of pediatrics, The American Board of Internal Medicine recently developed and published criteria for clinical competence in internal medicine.<sup>38</sup> Its task force defined the major variables involved in the clinical encounter as: (1) attitudes and habits, (2) interpersonal skills, (3) motor and technical skills and (4) intellectual abilities. It specifically requires that the physician provide comprehensive and continuing care, be sensitive to psychosocial factors, be alert to patients' emotional needs, communicate effectively, and educate his patients in holistic medicine.

Elements of a holistic approach to health have appeared periodically from the days of Greek mythology. Although the term holistic—let alone "wholistic"—is not listed in the *Index Medicus*, the term has long been used in philosophy, science, and psychology.

Holistic, as a word, comes from the same root as "health", "whole" and "hale," concepts that strongly suggest that human health is in a pro-



cess of becoming, a dynamic movement toward a full realization of latent possibilities. Coined in 1926, the term was used by Smuts to describe a drive to organize into larger and larger wholes. In 1939, Goldstein picked up the term and used it to suggest that we needed a "holistic-dynamic" psychology—as opposed to a "static-analytic" one—to explain human nature. In his book, *Human Nature in Light of Psychopathology*, he proposed one overarching drive subsuming all others: a basic tendency of the organism to actualize itself in its own nature.

Key principles of holistic medicine are deeply embedded in the philosophical undergirding and practice of psychiatry: the individual and not the health-care system is responsible for the development and maintenance of health; human beings have a special uniqueness seen only when one observes their totality, in the context of their families and communities; health is a positive state of functioning and well-being, and not just the absence of disease; that one function of the physician is to teach the patient how to manage his illness and how to maintain a healthier state—these concepts are not new to psychiatry. They do, however, imply the acceptance of a particular value system—that the individual is responsible for himself, and a particular orientation to future time—an orientation usually associated with the middle-class and the obsessive personality.

Because its conception is so encompassing, its definition so vague, its purpose so lofty and its promise so enticing, holistic health-care is embraced by many. Yet, this is essentially the approach that Adolf Meyer introduced into psychiatry forty years ago.

Major problems arise from the fact that the same terms and techniques are used by people whose world-views are fed in different proportions by very different streams and whose basic assumptions may be incompatible. The most common of these world-views are: (1) The spectator-spectacle universe world-view, and (2) its logical extension, the supernaturalistic world-view, and (3) the general-systemic world-view.

#### WORLD-VIEW I: THE SPECTATOR-SPECTACLE UNIVERSE.

We live within a spectator-spectacle view of the world we inherited from Aristotle, Newton and Descartes. This is the view of reality our culture has programmed us to see, a view rest-

ing on a reality where the observer and the observed can be separated, a view in which reality is structured into sequential arrangements of cause and effect. This is the world view behind our currently dominant version of the medical model.

Our particular version of this world-view is predicated on a number of additional and related assumptions: (1) the assumption of man as lord of nature, (2) the assumption that others and even we ourselves are ~~objects~~ <sup>subjects</sup> to be manipulated, and frequently (3), the assumption of inevitable competition and a winner and loser in dyadic transactions.

In medicine, there has been mounting unease and suspicion that our health needs have not been met and that the traditional biomedical model has had an insufficient, if not a downright negative effect, on the cost of health care. It is blamed for unnecessary hospitalization, over-utilization of laboratory tests, excessive surgery, dangerous trends in an era of scarcity as well as a professionalism which has produced a caste system of health-care personnel. However, it is just because the biomedical model has been so successful in conquering the most important medical problems of the past, such as infection, that we cling to it, although it seems much less useful for dealing with the major health problems of today.<sup>39</sup>

Finally, there are many phenomena which we cannot explain if we think only in terms of linear cause and effect and of the separability of the observer and the observed. The unexplainable becomes, almost by definition, a "miracle."

#### WORLD-VIEW II: THE SUPERNATURALISTIC.

Western views of reality, of cause and effect, and of illness and health are products of a view of reality which has been determined, in large part, by the empirical rationalism of Western science. This mode of thought and its reality is the standard with which we assess other world-views. From this framework, it seems bizarre that sophisticated Western people should be interested in, much less believe in the magical ideas our culture abandoned long ago. However, Western science and its world-view is really very fragmented. It provides only approximate and very limited explanations for isolated fragments of human life and fails to provide a cohesive picture of the whole. Consequently, it offers little to provide purpose or meaning.



As Levi-Strauss demonstrated so well in *The Savage Mind*<sup>40</sup>, so-called primitive constructions of reality provide a more coherent cohesive view of the world and of human behavior and an explanation and interpretation for everything. Supernatural systems integrate the totality of all life events: illness, magic, pain and ritual are inseparable. Psychological and political systems can attain a similar power only if they are embraced in a metaphysical system and if they are integrated into every aspect of day-to-day living. Like cults, some certain brands of holistic medicine have attempted to achieve this.

While we may prefer to think that the successes of modern medicine are based on scientific research, for the majority of people, ignorant of biochemistry and physiology, the real teaching may be quite different. The real curriculum is magic. In our hospitals and great clinics we have created new temples. In our professionalism, we have created hierarchies of new priests. In penicillin and the steroids we have our early miracle cures. In embracing a wide range of questionable untested and outright characteristic practices, the public shows how well it has learned this hidden curriculum. The shaman behind the physician may not have been so far behind as we have imagined.

This world-view leads, I believe, to a naive, therapeutic pseudo-holism which is no more than a hodge-podge of therapies and techniques designed to heal the "body," the "mind," the "emotions," and the "soul." These very terms, themselves an inheritance from Neopythagorean and Orphic sources, embellished by Neoplatonism and mediaeval thinking, are now so rich in connotation they mean little.

It is perhaps not surprising that psychiatry is returning to medicine and becoming more biological at the very time that our society is becoming more metaphysical. Hyper-rationalism has usually been followed by a renewal of supernaturalism. With rationalism comes too much responsibility. The belief that we are responsible not only for our actions but also for our feelings and guilts may be overwhelming.

#### WORLD VIEW III: A SYSTEMS APPROACH.

The biomedical view of medicine assumes

the existence of discrete entities called diseases and a set of other entities called therapies. The task of the healer is to classify signs and symptoms and determine which of these disease entities are present in the patient. This process suggests a corresponding therapy which the physician is then to apply. This view is essentially Aristotelian in its reliance on categories and in its linear cause and effect approach to the etiology of disease and to treatment. Biomedicine fits well with the disciplinary approach to the basic sciences and to biochemistry and physiology, but its limits become apparent when we attempt to apply it to more complex levels. In psychiatry, for example, the process of labeling certain behaviors as "diseases" and attempting to cure them has had unanticipated consequences. Sometimes, attempts to cure the patient actually become part of the problem.

There is another way to look at the world and to understand our place in it, a way which does not resort to leaps into faith, and which does not require that we discard what we have learned over the past millennium. It is possible to conceptualize man as a hierarchy of natural systems which are connected by various patterns of information flow and feedback. Natural systems, Laszlo has observed,<sup>41</sup> share a number of characteristic properties:

1. Natural systems are wholes of a reducible part.
2. Natural systems maintain themselves in a changing environment.
3. Natural systems create themselves in response to challenges of the environment.
4. Natural systems are coordinating interfaces in a hierarchical organization.

If the hierarchy including human beings — atoms, molecules, organelles, organ systems, family, community, nations, and even mankind — is extended as far as is practical in each direction, the resulting level defines Man in his broadest sense. While the labeling of these levels is somewhat arbitrary and other subdivisions are certainly possible, the hierarchical levels themselves are not arbitrary chunks torn from a continuum. Rather they, are similar to quantum levels in the description of atomic structures. An important feature of this Man hierarchy is the part which we call "the person," which consists of a number of levels representing different levels of complexity in human behavior and experience.

The "Person" level is important to use because it represents the locus of our conscious-



ness. It is at this point that we achieve conscious awareness of both higher and lower levels. The "Person" level is the locus of decision-making and of exercising control over levels above and below.

These characteristics — making informed choices and exerting control over the environment — have been increasingly emphasized as an essential aspect of the nature of man. In medicine, a new ethic requires the physician to establish a data base for each patient and to inform him as to the options available. The patient, then, with his physician's counsel and guidance, chooses a plan of management. The physician implements the plan, taking upon himself the strictly technical decisions. This view of practice has been called the contractual model or, in Lazare's terminology, "the negotiated approach to patienthood." It is reflected in the Joint Commission's Balanced Service System's transformation of the "patient" into a "consumer."

In mental health, there is growing appreciation that an individual is more than his history, past learning and character. The work of Bateson, the family therapy approach of Minuchin and *The Report of the President's Commission on Mental Health* with its stress on social support groups all emphasize that our very sense of self is maintained by the context in which we live; that is, the self does not end at our skin but is constantly acted upon and regulated by the environment.<sup>42</sup> It includes the individual himself and his feedback loops. Certain environments bring out certain aspects of a personality while other aspects fade. Cassel,<sup>43</sup> for example has recently reviewed a large body of research which links increased social disorganization, population density, and rapid change with enhanced susceptibility to disease. The pathogenic element, he concludes, is that relevant messages about expectations and evaluations of an individual's behavior are not consistently communicated or that the individual is not familiar with those expectations and evaluation cues. Of the protective social processes, the most significant are the nature and strength of available support groups.

In a systems framework, health can be defined as the harmonious interaction of all hierarchical components, and disease as this result of any force which perturbs the hierarchical structure. Viewing the causes of diseases as perturbations rather than its entities — scalar rather than vector quantities — has

significant advantages. First, the sum of two vectors may be zero. Our efforts to solve the problem may maintain the status-quo, or even make the problem worse. It emphasizes the difficulty in distinguishing accomodating from initial disruptions.

Within this framework, it makes no sense to state that the processes of the mind are "nothing but" biochemical and physical currents in the brain. It is more appropriate to attempt to discover which biochemical and biophysical processes are correlated with which mental functions of a higher level. Feelings are not more important than thoughts, or vice versa.

It is humbling to recall that between 1906 and 1936 many philosophers, psychologists and physicians shared a holistic, organismic view, and phrases such as the "organism as a whole", "mind-body unit" and "the organism in its environment" were not uncommon. By the 1930's, there had developed three major streams in American psychiatry: The psychobiological, as typified by Adolph Meyer, Flanders Dunbar, William Allinson White, Smith Ely Jelliffe, and Edward J. Kempf; a new orthodoxy of psychoanalysis, typified by the establishment of major institutes in New York, Boston, and Chicago; and exciting developments in psychophysiology. In 1932, Dunbar began her major studies at Columbia; Alexander founded the first psychoanalytic institute; and Canon amplified the concept of homeostatis.

Meyer emphasized the "whole man" interacting with the "total environment." He held it important to keep as a frame of reference the concept of the whole man — all levels of organization from the biological to the psychological — interacting with the total environment — all levels from physical to social. For him, the current situation and the history of events leading up to the problem were of equal importance.<sup>44</sup>

With the virtual retirement of Meyer, White, Jelliffe, and Draper and with the disrepute of two possible leaders, Frenczi and Wilhelm Reich, only Dunbar remained to promulgate this view. Dunbar's rise was spectacular but her fall was also rapid. With her fall, the holistic, organismic approach, so readily accepted in the 1930's, no longer could capture attention. Today, we seem to have come full circle. The "return to medicine" is really a return to the holistic organismic approach. Welcome back Adolf Meyer!

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# Medicine and the Law

## Physician-Patient Relationship

ED KELSAY, LLB

*Much has been written about the patient's rights in the doctor-patient relationship. But what about the physician's legal rights? This is the first of a series of articles designed to bring Oklahoma physicians up-to-date with regard to their legal rights, duties, and responsibilities in the every day conduct of their medical practices.*

Historically and traditionally the relationship between a physician and a patient has attached to it many ethical and humanistic considerations. But, in its simplest terms, the physician-patient relationship is contractual and arises out of an express or implied agreement. It is a contract between two people for the rendition of a personal service. All other attributes of the relationship are in addition to this basis.

One court<sup>1</sup> has said: "The relationship of physician and patient is a consensual one depending on the physician's acceptance of the patient and the latter's assent to the medical services." It should be noted that a contract carries with it an implication that either party has a freedom to participate or not to participate in it.

"A physician is free to choose whom he will serve," states the American Medical Association's "Principles of Medical Ethics."<sup>2</sup> The courts agree that a physician is not bound to render professional services to every person who applies to him. He may decide, quite arbitrarily, whether he will accept or reject a patient even though no other physician is available.<sup>3</sup>

Once the physician-patient relationship has been established, the physician is under an obligation to attend the case as long as it requires attention. This is not to say, however, that the relationship continues on into infinity. Since it has a contractual basis, the relationship has a very definite beginning and a very definite ending.<sup>4</sup>

The relationship begins when the physician, in response to an express or implied request that he treat the patient, undertakes to render services. A tentative contract comes into existence when the patient contacts the physician's office and requests an appointment. Once the patient is allowed to expend time, energy, or money and actually arrives at the office, the physician is obligated to see the patient at least that first time.

Unless there is a special agreement between the doctor and the patient, once the relationship is entered into the physician is under an obligation to attend the case as long as it requires attention. He may terminate the relationship in one of three ways: first, the patient may be discharged as being as well as the physician can make him; second, the patient

may be referred or transferred to another physician for care; or, third, the patient may be dismissed.<sup>5</sup>

In this latter situation the physician cannot simply walk away. In order to relieve himself of liability he must notify the patient of his withdrawal and give him a reasonable amount of time to secure other means of medical attention.<sup>6</sup>

For several years the Oklahoma State Medical Association has recommended that the dismissal of a patient be conducted in a very formal manner by giving the patient written notice and specifying in the notice a reasonable amount of time for the patient to find care.

The following letter<sup>7</sup> appears in the association's booklet, *Professional Liability Medical-Legal Guide for Physicians*:

Dear Patient:

I regret to inform you that I am withdrawing from further professional attendance upon you. It is necessary for me to take this action because (here set out reasons; ie, persistent failure to settle bill, refusal to follow instructions, failure to keep appointments, etc).

Your condition requires medical attention. Therefore, I suggest that you immediately make arrangements with another physician to provide the medical care which you should have.

If you wish, I will continue to attend you for a brief period of time while you are making arrangements to retain another physician, but this period of time must not exceed seven days.

---

*Ed Kelsay is an attorney currently serving as Legal Counsel for the Oklahoma State Medical Association and the Oklahoma Foundation for Peer Review. He is a Certified Association Executive, one of only 800 in the country, and a member of the National Speakers Association. Mr. Kelsay is an adjunct professor on the staff of the University of Oklahoma School of Health and a visiting lecturer on medical law for the Department of Family Practice of the University of Oklahoma School of Medicine. He also serves as the malpractice loss prevention manager for PLICO, the physician-owned professional liability insurance company in Oklahoma.*

I am enclosing a consent form for you to sign and return to me. This will authorize me to release information regarding your case history, diagnosis, and treatment to your new physician.

It is recommended that this formal termination of the doctor-patient relationship be utilized even when a patient is not under current care. It should also be noted that the "seven days" mentioned in the letter is a minimum recommendation. The actual amount of time should be tailored to the situation.

The one aspect of the doctor-patient relationship that does continue on into infinity is the confidentiality of the information derived. The patient must feel free to make a full disclosure of facts to his physician and must *know* that the physician will respect the confidential nature of the communication.

The confidential nature of patient information is not new. The oath of Hippocrates<sup>8</sup> states, "Whatever in connection with my professional practice, or not in connection with it, I may see or hear in the lives of men which ought not to be spoken abroad I will not divulge, as reckoning that all such should be kept secret."

The Principles of Medical Ethics of the American Medical Association<sup>9</sup> state, "a physician may not reveal the confidences entrusted to him in the course of medical attendance, or the deficiencies he may observe in the course of medical attendance, or the deficiencies he may observe in the character of patients, unless he is required to do so by law or unless it becomes necessary in order to protect the welfare of the individual or of the community."

When the Principles of Medical Ethics were changed in 1980 by the AMA House of Delegates, confidentiality of patient information was still a concern. The new principle<sup>10</sup> states, "A physician shall respect the rights of patients . . . and shall safeguard patient confidences within the constraints of the law."

Improper revelation of patient information can be doubly dangerous for a physician in the State of Oklahoma. In almost every state, including Oklahoma, the betrayal of a patient's confidence is classified as unprofessional conduct and is grounds for revocation of a physician's license.<sup>11</sup> At the same time in Oklahoma, the improper release of patient information could expose a physician to a lawsuit for invasion of privacy.



The right of privacy means the right to live one's life in seclusion without being subjected to unwarranted and undeserved publicity or the right to live without unwarranted interference by the public in things which the public is not necessarily concerned.<sup>12</sup>

Legal authorities agree that there is no common law duty upon a physician to protect patient information from disclosure. The right of privacy was not protected at common law. However, in recent years there has been a trend in courts to provide a remedy, a lawsuit in the form of an action in tort, for the violation of an individual's right of privacy.<sup>13</sup>

Even though the doctor-patient relationship is based on the law of contracts, those statutes and enactments do not circumscribe its outer perimeter. The humanitarian and ethical aspects of the relationship must be included and, in fact, are included in the minds of both physicians and patients.

Ethics have been referred to as "the law of

the professional." Obviously, the Principles of Medical Ethics of the American Medical Association are not laws, but they are "... standards of conduct which define the essentials of honorable behaviour for the physician."<sup>14</sup>

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601 N.W. Expressway, Oklahoma City, OK 73118.

# 1981 OSMA ANNUAL MEETING



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## News From The Oklahoma State Department of Health

The Oklahoma State Board of Health, meeting in Oklahoma City on December 13, 1980, adopted rules and regulations for licensure of long-term care facilities in Oklahoma. These regulations implement major changes in many aspects of nursing home operation as set forth by the State Legislature in early 1980 in House Bill 1853, "The Nursing Home Care Act."

While these changes do not directly affect the provision of physician services in nursing homes by private practitioners in the state, physicians may receive questions from patients' families concerning various aspects of nursing home organization and operation.

The major sections of the regulations address the license requirements, the physical plant, the general support services, and resident care services.

The general support services section of the regulations addresses the concept of "resident's bill of rights." The complaint procedure has been expanded and clarified from earlier ver-

sions of the regulations and calls for the establishment of a resident advisory council.

The resident care services section of the regulation continues the provision that all persons admitted to a nursing home shall be under the care of a physician who is responsible for overall medical care of the patient. Additional provisions deal with staffing patterns of nursing homes, procedures for the handling of medications, provisions for cooperating with the State Department of Health in the control of tuberculosis, and dental care services.

Prior to adopting the new regulations, public hearings were held throughout the state and various ad hoc and permanent advisory bodies reviewed the provisions in detail. Organizations representing older citizens of the state, as well as the Oklahoma Nursing Home Association, participated in the discussions leading to the development of the new guidance for nursing homes.

The board also endorsed updated regulations governing the operation of room and board homes in the state.

Physicians interested in nursing home care can request copies of the new regulations from the Health Facilities Service, Oklahoma State Department of Health, P.O. Box 53551, Oklahoma City. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR NOVEMBER, 1980

DISEASE	November 1980	November 1979	October 1980	Total To Date	
				1980	1979
Amebiasis	1	1	3	42	18
Aseptic Meningitis	21	7	14	75	110
Brucellosis	2	1	1	9	6
Encephalitis, Infectious	3	2	4	13	22
Gonorrhea (Use Form ODH-228)	1073	1091	1244	12769	12726
Hepatitis A	27	26	16	333	243
Hepatitis B	13	16	24	194	143
Hepatitis Unspecified	5	14	15	219	184
Malaria	—	3	—	12	8
Measles (Rubeola)	—	—	1	775	22
Meningococcal Infections	4	3	2	23	37
Pertussis	4	3	1	28	28
Rabies (animal)	11	22	27	234	265
Rocky Mountain Spotted Fever	10	1	4	72	60
Rubella	—	1	1	6	24
Salmonellosis	38	28	55	340	360
Shigellosis	15	46	21	222	253
Syphilis (Use Form ODH-228)	9	4	12	108	88
Tetanus	—	2	—	1	2
Tuberculosis	38	11	18	306	322
Tularemia	2	—	2	23	14
Typhoid Fever	—	—	2	6	—



## 1981 OSMA Annual Meeting Features Changes

The 1981 Annual Meeting of the Oklahoma State Medical Association will appear somewhat different from previous OSMA annual meetings. The most obvious is the selection of the Shangri-La resort in Afton, Oklahoma, as its location.



William Y. Rial, MD

Shangri-La was chosen to serve the meeting's most significant change which is to offer physicians more free time to spend with their families during the May 7-10 convention.

Physicians and their families will have plenty of time to enjoy Shangri-La's wide assortment of recreational and entertainment facilities. Unlike previous years, scientific and business sessions will be conducted only during the morning hours to offer free time to doctors in the afternoons.

William Y. Rial, MD, Speaker of the House of Delegates of the American Medical Association will address the opening session of the OSMA House of Delegates on Thursday, May 7. Doctor Rial practices general medicine in Swarthmore, Pennsylvania. He obtained his medical degree from the University of Pittsburgh School of Medicine in 1950 and also has a bachelor of science degree in engineering from the University of Pittsburgh.

OSMA reminds physicians and their families to reserve their lodging before April 7. To do this, either write: Reservations Office, Shangri-La, Route No. 3, Afton, Oklahoma, 74331 or call one of the following toll-free numbers (in Oklahoma) 1-800-722-4903 or (outside Oklahoma) 1-800-331-4060.

OSMA now has all of Shangri-La's facilities reserved but must release all open space at 5:00 PM on April 7.

Tickets for various functions during the Annual Meeting should also be purchased in advance. These include the OSMA Presidential Inaugural Banquet and Ball, the Western Hogan Party, auxiliary functions and the Advanced Cardiac Life Support course. Tickets have not yet gone on sale, but OSMA will mail ticket sales information soon.

Further details on the OSMA Annual Meeting, the recreational and entertainment facilities at Shangri-La along with other spe-

cial features about the resort will be included in the March issue of the *OSMA Journal*.

A tentative program for the 1981 OSMA Annual Meeting is printed below.

### TENTATIVE PROGRAM

#### Wednesday, May 6

2:00 PM

OSMA Executive Committee

4:00 PM

OSMA Board of Trustees

#### Thursday, May 7

10:00 AM

Opening Session OSMA House of Delegates

2:00 PM

OSMA Reference Committees

7:00 PM

Western Hogan Party

#### Friday, May 8

7:30 AM

Breakfast with the faculty

8:30 AM

Scientific Program begins—"The Clinical Crisis"

8:30 AM

Clinical Crisis and Cancer Patients—Petre N. Grozea, MD, Oklahoma City, Oklahoma

9:25 AM

The Suicidal Patient—James L. Mathis, MD, Greenville, North Carolina

10:00 AM

Upper G.I. Bleeding—David A. Neumann, MD, Oklahoma City, Oklahoma

10:35 AM

Life Threatening Cardiac Arrhythmias, Jerry L. Bressie, MD, Oklahoma City, Oklahoma

11:30 AM

Upper Airway Obstruction In Children—Thomas A. Dodson, MD, Tulsa, Oklahoma

12:05 PM

Advancements In Emergency Room Technology—Robert J. Wilder, MD, Oklahoma City, Oklahoma

12:40 PM

Multiple Trauma Patients—James M. Guernsey, MD, Tulsa, Oklahoma

1:30 PM

Advanced Cardiac Life Support Course

1:30 PM

Malpractice Prevention Seminar

Afternoon

OSMA Golf Tournament

7:00 PM

OU Alumni Association Banquet

#### Saturday, May 9

7:30 AM

Breakfast with the faculty

8:30 AM

Scientific Program begins—"The Clinical Crisis"

8:30 AM

Management of Allergic Emergencies—Jim Wells, MD, Oklahoma City, Oklahoma

9:25 AM

Reversing Drug Reactions—Hal Nelson, MD, Fitzsimmons Army Medical Center, Aurora, Colorado

10:20 AM

Poisoning In Children—John Stuemky, MD, Oklahoma City, Oklahoma

#### Saturday, May 9

10:55 AM

Obstetrical Emergencies—Joseph C. Scott, Jr., MD, Omaha, Nebraska

11:45 AM

Closing Session OSMA House of Delegates

Afternoon

OSMA Tennis Tournament

1:00 PM

Advanced Cardiac Life Support Course

7:00 PM

OSMA Presidential Inaugural Banquet and Ball

#### Sunday, May 10

9:30 AM

President's Prayer Breakfast

1:30 PM

Advanced Cardiac Life Support Course



## Regents Name Interim Dean

G. Rainey Williams, MD, has been named the interim dean of the College of Medicine at the University of Oklahoma Health Sciences Center by the Oklahoma University Regents. He will preside as dean until the appointment of a permanent dean.

Doctor Williams was graduated from the Northwestern University School of Medicine, Chicago, IL. He completed his internship and residency training at the Johns Hopkins Hospital in Baltimore, MD. Subsequently, he was appointed to several teaching positions at Johns Hopkins.

Doctor Williams has been a professor and chairman of the Department of Surgery at the University of Oklahoma School of Medicine since 1974. From 1977 to 1979 he was the Chief of Staff of the University Hospital and Clinics, Oklahoma City. He has also either authored or co-authored more than 70 articles for various medical publications including *The Journal of the Oklahoma State Medical Association*, the *Journal of the American Medical Association* and various specialty publications. ☐

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Think how an unexpected accident or illness could halt your income at any moment . . . and you'll realize how important **Disability Income Insurance** can be. Your Oklahoma State Medical Association sponsors an excellent group program which provides up to **\$500 a week** in benefits — benefits designed to help you and your family through periods of health and economic uncertainty — benefits of steady, continuing income!

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## OSMA To Conduct Leadership Conference



James S. Todd, MD

The first OSMA Leadership Conference will be held February 27 to March 1 at the Sheraton Century Center Hotel in Oklahoma City.

Several national and local speakers will make appearances during the conference. James S. Todd, MD, AMA Board of Trustees will present the keynote address on Saturday morning, February 28. Other keynote speakers will be Frosty Troy, editor of the *Oklahoma Observer*; Jack R. Bierig, JD, partner in the Chicago law firm of Sidley and Austin; Jerry P. Clousson, JD, LLM, director of the AMA Department of Negotiations; Mortimer Enright, MAT, a pioneer in the use of videotape playbacks as a method of teaching successful speaking and spokespersonship; and Stephen May, PhD, associate professor in the radio-television-film department of Northwestern University.

The conference will also feature several workshops. OSMA staff will present workshops on AMA and OSMA Organization and Members Services; Now That I Have Been Elected, What Do I Do?; The Problem Physician, When and How to Take the Initiative; The Care and Feeding of the Local Press; Conflict Resolution; and PLICO and other OSMA Insurance Programs.

Registration is \$50.00 per person and the deadline for registration is February 13. Listed below is a schedule of events.

### CALENDAR OF EVENTS

#### Friday, February 27

6:30 PM

Registration and Early Bird Cocktail Reception

#### Saturday, February 28

7:30 AM

Breakfast and Opening Session: 18th Century Room

Welcome: Floyd Miller, MD, OSMA President

Keynote Speaker: James S. Todd, MD

AMA Board of Trustees

9:00 AM

First Workshop Period: All workshops will be given simultaneously. Each will be offered four times beginning at 9:00 AM, then again at 10:30, 1:45 and 3:15. Each session will be one hour and fifteen minutes.

10:15 AM

Coffee break

10:30 AM

Second Workshop Period

12:00 PM

Lunch: 18th Century Room

Introductions: James B. Pitts, Jr., MD

OSMA President-Elect

Speaker: Frosty Troy, Editor, *Oklahoma Observer*

1:45 PM

Third Workshop Period

3:00 PM

Coffee break

3:15 PM

Fourth Workshop Period

4:30 PM — 6:30 PM

Reception: 19th Century Room

#### Sunday, March 1

8:00 AM

Breakfast: 18th Century Room

Introductions: Vic Robards, MD, Chairman,

OSMA Council on Medical Education

Speaker: Jack R. Bierig, Attorney

Sidley & Austin, Chicago, IL

"Physician Ethics and Advertising"

9:00 AM

Super Sessions A and B

A. The Art of Negotiations: 19th Century Room

Presenter: Jerry P. Clousson, JD, LLM, Director

AMA Department of Negotiations

B. The Art of Communications: 20th Century Room

Presenters: Mortimer Enright, Director, AMA, Speakers & Leadership Programs; and Stephen May, PhD, Associate Professor, Radio-Television-Film Department, Northwestern University

Persons attending the Leadership Conference may choose up to four workshops to attend on Saturday, February 28 and may choose between two super sessions on the morning of Sunday, March 1. To receive registration information contact OSMA, 601 NW Expressway, Oklahoma City, Oklahoma 73118, or call 405 843-9571. □

### ATTENTION

### COUNTY MEDICAL SOCIETIES

All resolutions to be presented to the Annual Meeting of the OSMA House of Delegates **MUST** be received at the OSMA Headquarters, 601 N.E. Expressway, Oklahoma City, OK 73118, at least thirty days prior to the meeting. Deadline for submission of resolutions this year is April 7, 1981.

Executives of the OSMA office will lend any assistance possible in the drafting of these resolutions.

# Oklahoma State Medical Association Announces

Summer 1981

## Intrav Adventure Programs

The Oklahoma State Medical Association and INTRAV are pleased to offer these outstanding travel programs in 1981. On the British Isles and European Adventures, INTRAV will again be conducting Medical Seminars for Category II, CME credit. If you are interested in further details, please contact the Oklahoma State Medical Association office.

### British Isles Adventure

Departing Tulsa & Oklahoma City July 24, Returning August 4, 1981

Tulsa—\$2199 + \$330

Oklahoma City—\$2199 + \$354

No matter how many times you've been there; no matter how many Gothic novels or travel books you've read, there will always be new places, new things to discover in green, green IRELAND, bonnie SCOTLAND and merrie old ENGLAND.

#### Where...

Killarney and Dublin, Ireland, Edinburgh, Scotland, London, England

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American breakfast at your hotel each morning. Dinner at a selection of the finest restaurants each evening.

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#### Escort...

Travel Director throughout your trip

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A full choice of optional sightseeing excursions

#### No Regimentation... Do As You Please!

### European Adventure

Departing Tulsa & Oklahoma City August 15, Returning August 24, 1981

Tulsa—\$1299 + \$330

Oklahoma City—\$1299 + \$354

Visit AMSTERDAM, cosmopolitan, yet still Hans Brinker-quiet. Go cuckoo over clocks in COLOGNE and HEIDELBERG. Capture the "gemutlichkeit" spirit in MUNICH...you'll be tapping your foot to the music of the oom-pah bands. It's the spell of Europe's heartland. Traveling by motorcoach lets you see the Europe most travelers flying by jet, miss. For ten relaxing days you'll capture the Old World charm of great cities and breathtaking scenery.

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(FIRST)

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City \_\_\_\_\_

State \_\_\_\_\_

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The Oklahoma State Medical Association sponsors tours to achieve the benefits of group travel for its members. Responsibility for the expenses of promoting and conducting the tours and seminars are fully borne by the company and its sub-contractors.



## Use of DMSO for Unapproved Indications

Reprinted, by permission, from the *FDA Drug Bulletin*, Vol. 10, No. 3, page 20, November, 1980.

The increasing use and promotion of dimethyl sulfoxide (DMSO) for uses for which it has not been shown to be safe and effective are of concern to FDA.

The product is currently available in three forms and concentrations:

- A 50 percent solution approved in 1978 for instillation in the urinary bladder in the treatment of symptoms of interstitial cystitis.

- A 90 percent solution approved in 1970 as a veterinary medication for topical use in non-breeding dogs and horses.

- A 99 percent solution marketed for many years as an industrial "degreaser solvent."

The Agency is particularly concerned about the use of the veterinary and industrial products by people treating themselves topically and orally for a host of conditions, including arthritis, bursitis, tendinitis, and muscular sprains and strains.

When rubbed on the body, DMSO in concentrations above 50 percent can cause erythematous skin irritation. The drug is readily absorbed when applied to intact skin and mucous membranes and can carry substances dissolved in the DMSO or present on the skin into the bloodstream.

The Agency is also concerned about the intravenous administration of DMSO in some "clinics" for arthritis and other ailments.

### HISTORY

DMSO is a well-known solvent used industrially since the 1940's. Therapeutic interest in DMSO began in 1963. By late 1965 an estimated 100,000 patients had used the drug, particularly for sprains, bruises, and minor burns. Despite this widespread use there have been no well-controlled studies to establish effectiveness for these indications.

After toxicological studies showed the drug changed the refractive index of the lens of eyes in experimental animals, FDA, in 1965, terminated all clinical research on the drug then being conducted under Investigational New Drug Applications (IND's). The concern was that damage might be done to the eyesight of humans given the drug. A year later this policy

was relaxed to permit clinical evaluation of DMSO in several conditions.

In September 1968, FDA published a further revision of its DMSO policy permitting topical application to the skin for not more than 14 days for less serious disabilities, such as acute musculo-skeletal conditions. This was based on a toxicological study in humans that provided no evidence of eye toxicity due to DMSO in humans during short-term topical use.

Additional animal studies, however, have demonstrated that prolonged use in animals causes opacities in the lens.

In 1972, FDA asked the National Academy of Sciences (NAS) to review all available information on the effectiveness and toxicity of DMSO to provide an independent judgment on these matters.

NAS concluded that there was inadequate scientific evidence of effectiveness of DMSO in any disease, and that the toxicity potential was sufficiently great to warrant DMSO's remaining an investigational drug.

### INTERSTITIAL CYSTITIS AND SCLERODERMA

In 1978, FDA approved the use of DMSO for the treatment of symptoms of interstitial cystitis after controlled suicides were reported to the Agency on the effectiveness of DMSO for this condition and after review by an outside advisory committee. In early 1980, on the advice of its Arthritis Advisory Committee, FDA turned down an application for marketing DMSO for the treatment of ulcers of the hands in scleroderma on the grounds that effectiveness had not been shown by adequate and well-controlled trials for this use.

In the most important clinical study reviewed, a study in which nine patients with bilateral ulcers of the fingers were treated on one hand only, patients showed improvement in both the treated and untreated hands, albeit at a somewhat faster rate in the treated hand. The Agency felt that there was not sufficient evidence from controlled investigations to permit approval for marketing, but there was sufficient evidence to merit encouragement of a larger, more definitive study. At the Agency's request, the Cooperative Systemic Studies for Rheumatic Diseases Group, supported by the National Institutes of Health (NIH), is organizing a well-controlled study of the use of DMSO in the treatment of cutaneous ulcers in scleroderma.



#### OTHER DISEASES STUDIED

Studies to determine the effectiveness of DMSO are under way for other conditions, including muscle sprains and strains, several urologic conditions, acute spinal cord injury, and stroke.

However, no sponsor is currently undertaking well-controlled studies of DMSO in the treatment of either rheumatoid arthritis or osteoarthritis and there is no application before FDA requesting permission to market DMSO for these conditions.

#### EFFECT ON HUMAN VISION

Present studies indicate that short-term topical use of DMSO is not associated with an effect on human vision similar to that in animals. Therefore, the Agency is not requiring monitoring of the eyes in investigational studies in which topical exposure to DMSO is limited to 14 days or less. However, studies are insufficient at this time to determine whether prolonged use in high dose in humans poses a risk of ocular damage.

While DMSO-related eye damage has not been shown to occur in humans, neither has the monitoring of patients in long-term studies been systematic enough to show that such damage is unlikely to occur.

Because of the absence of systematic long-term follow-up data for eye toxicity in sufficient numbers of patients following repeated or chronic use of DMSO, FDA is requesting that ocular examinations continue to be performed during and following prolonged treatment with high doses of DMSO to provide such data.

#### ADVICE TO PATIENTS

More information needs to be accumulated and analyzed concerning the effectiveness of DMSO in the many conditions for which it has been advocated, and the issue of long-term safety needs to be resolved. Meanwhile, FDA urges physicians to counsel patients against purchasing DMSO of unknown quality and medicating themselves for purposes for which it has not been shown to be effective. Health professionals may also want to advise patients that when used at high doses for long periods, DMSO has not been shown to be without risk of eye injury.

Physicians should be alerted to the adverse effects of DMSO, which can include erythema, nausea, and the potential risk of blurring of vision or other eye problems. DMSO can initiate the liberation of histamine and one case of severe hypersensitivity reaction has been reported after topical administration.

The more common outlets for the industrial solvent solution are hardware stores, mail order houses, and the backs of trucks operating near shopping centers or parking lots. Pharmacists may be approached to distribute DMSO, marked "degreaser solvent." The Agency urges pharmacists to protect consumers by refusing to distribute this product. □

### Legislature to Consider 911 Emergency Telephone System

The Oklahoma Legislature is now considering recommendations favoring a mandatory 911 emergency telephone service in Oklahoma.

A 911 emergency telephone service would establish the number, 911, as a single number in Oklahoma for contacting a variety of emergency services including fire, police and medical emergency services.

The legislature's interest in a mandatory emergency telephone system originated last year with Senate Bill 108, but the legislature tabled the bill until a feasibility study could be conducted.

The legislature assigned the task of coordinating the feasibility study to the Department of Public Safety. The department hired an experienced consulting firm to conduct the study and to compile a complete report of the findings for the 1981 legislature. In addition, the department appointed a committee including a representative from the Oklahoma State Medical Association to periodically review the findings of the feasibility study while it was in progress.

Several years ago, fifteen exchange areas in Oklahoma opted to implement 911 systems following the state legislature's approval of the Oklahoma Telephone Emergency Act. Although the act mandates the development of a state plan for an emergency system, it does not require the implementation of the plan. This type of legislation is one of two categories of legislation which has caused areas in only ten other states to implement 911 emergency systems. The other category of legislation not only mandates the development of emergency sys-



tem plans, but it also mandates the implementation of the plans as well.

After reviewing the findings of the feasibility study, the committee has recommended that the 1981 Oklahoma legislature amend the Emergency Telephone Act to mandate implementation of a 911 emergency system for the state. Implementation would involve establishing Public Safety Answering Points (PSAPs) which would serve as 24-hour-central-contact points for the state's various emergency services.

The feasibility study indicated that one to four minutes could be saved during the process of contacting emergency services with the aid of a 911 emergency system in Oklahoma. An assistant fire chief was cited in the report for having said that the first five minutes of a fire is equivalent to the subsequent five hours. The 911 emergency system would replace hundreds of its current emergency service numbers with only one number.

Other findings in the report said the cost of conversion in Oklahoma would be approximately \$4,747,411. It added that more than one-half of the state's exchange areas would require modification costs of less than \$2,000 while approximately 5% would need more than \$20,000. The report also said that a complete transition of this type could require from 4-6 years.

In addition, the committee has recommended that the legislature issue full authority to the Department of Public Safety to coordinate the development and implementation of a state-wide 911 emergency service. The department will also be requested to devise standards for the state's PSAPs if the legislature approves the 911 system.

The American Telephone & Telegraph Company (AT&T) originally suggested the use of the number, 911, for an emergency service number because it is not used as an exchange number or area code anywhere in the nation. A T & T is also encouraging the development of a 911 emergency telephone system nationwide. □

## **1981 OSMA ANNUAL MEETING**

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## **Handicapped Physicians**

I am a multiple-handicapped doctor interested in contacting other handicapped physicians in order to obtain some approximation of the size and characteristics of this population in the United States and Canada. There is currently no organization to provide statistical data on the career patterns of such individuals or to what extent various handicaps affect the physician's ability to remain in active practice. Should any physician become handicapped, such information would be of utmost value in determining the feasibility of remaining in any chosen field and would also provide some indication of the career opportunities available to this unique population.

All physicians, active or inactive, with any type of physical handicap are asked to contact F. Zondlo, MD, St Paul-Ramsey Medical Education and Research Foundation, 640 Jackson Street, St Paul, Minnesota 55101.

## IN MEMORIAM

### Deaths

ROBERT C. BOWERS, MD  
1922-1980

Robert C. Bowers, MD, 58, Oklahoma City physician and past director of the Oklahoma City-County Health Department, died December 31, 1980. A native of Bartlesville, Oklahoma, Dr Bowers was graduated from the University of Oklahoma College of Medicine where he was clinical assistant professor of the Department of Community Health. Doctor Bowers had served as a medical missionary to the Belgian Congo for 13 years. He was a diplomat of the American Board of Preventive Medicine and a fellow of the American College of Preventive Medicine.

ATHOL L. FREW, JR., DDS, MD  
1916-1981

Athol L. Frew, Jr., DDS, MD, Oklahoma City oral surgeon, died January 1, 1981. Doctor Frew was graduated from the University of Texas Southwestern Medical School in 1945. He was certified by the American Board of Oral Surgery and was professor and chief of the Division of Oral Surgery at the University of Oklahoma Health Sciences Center.

FRANK R. VIEREGG, MD  
1893-1980

Frank R. Vieregg, MD, a Clinton otolaryngologist for 52 years, died in Yukon December 6, 1980. Dr Vieregg had moved to Yukon in 1975. Vieregg, 87, was graduated from the University of Kansas Medical School in 1918. He had practiced in Oklahoma City before moving to Clinton. He was a Life Member of the OSMA. □

### 1980

<i>Alvin R. Jackson, MD</i>	<i>January 2</i>
<i>Johnny A. Blue, MD</i>	<i>January 31</i>
<i>Merle L. Whitney, MD</i>	<i>February 4</i>
<i>Donald D. Lensgraf, MD</i>	<i>March 3</i>
<i>Charles H. Eads, MD</i>	<i>March 8</i>
<i>Ollie McBride, MD</i>	<i>March 10</i>
<i>Paul C. Gallaher, MD</i>	<i>April 20</i>
<i>Ennis M. Gullatt, MD</i>	<i>April 26</i>
<i>John E. Highland, MD</i>	<i>April 28</i>
<i>H. Violet Sturgeon Minton, MD</i>	<i>April 29</i>
<i>Elton W. LeHew, MD</i>	<i>May 3</i>
<i>C. W. Arrendell, MD</i>	<i>May 6</i>
<i>Edward A. Abernethy, MD</i>	<i>May 9</i>
<i>William F. Thomas, Jr., MD</i>	<i>May 17</i>
<i>Robert C. Lawson, MD</i>	<i>May 17</i>
<i>Robert L. Lembke, MD</i>	<i>June</i>
<i>Joseph Fulcher, MD</i>	<i>July 2</i>
<i>Emmett O. Martin, MD</i>	<i>July 15</i>
<i>James R. Colvert, MD</i>	<i>July 22</i>
<i>Thomas J. Hardman, MD</i>	<i>July 24</i>
<i>Kelly M. West, MD</i>	<i>July 28</i>
<i>Tom S. Gafford, MD</i>	<i>August 4</i>
<i>Joseph J. Swan, MD</i>	<i>August 25</i>
<i>Milton J. Serwer, MD</i>	<i>August 28</i>
<i>Henry B. Jenkins, MD</i>	<i>August 28</i>
<i>I. F. Stephenson, MD</i>	<i>September 7</i>
<i>Emory E. Beechwood, MD</i>	<i>September 9</i>
<i>Paul B. Champlin, MD</i>	<i>September 17</i>
<i>Bernard Brock, MD</i>	<i>September 25</i>
<i>Lee Pullen, MD</i>	<i>October 6</i>
<i>Walter E. Sethney, MD</i>	<i>October 14</i>
<i>Ralph R. Nepveaux, MD</i>	<i>October 19</i>
<i>John M. Parrish, MD</i>	<i>November 8</i>
<i>Franklin D. Sinclair, MD</i>	<i>November 16</i>
<i>Henry K. Speed, MD</i>	<i>November 17</i>
<i>Joel T. Woodburn, MD</i>	<i>November 18</i>
<i>Frank R. Vieregg, MD</i>	<i>December 6</i>
<i>Robert C. Bowers, MD</i>	<i>December 31</i>

### 1981

*Athol L. Frew, Jr., DDS, MD* *January 1* □



## JCAH Board Makes Changes During December Meeting

### JCAH BOARD APPROVES REVISIONS

The Board of Commissioners of the Joint Commission on Accreditation of Hospitals (JCAH) approved several revisions and appointments during its December, 1980 meeting.

JCAH's hospital accreditation standards were amended by the board to allow qualified oral surgeons to perform hospital admitting histories and physical examinations on patients admitted for surgery by oral surgeons. In addition, specific criteria were established to identify qualified oral surgeons. The criteria will be published in the 1982 edition of the *Accreditation Manual for Hospitals* (AMH) and will become effective January 1, 1982.

Another revision approved by the Board of Commissioners involves the JCAH's standard about cardiopulmonary resuscitation (CPR). Last August, the board changed its standard for hospital medical staffs and called for a review of all references to CPR in the AMH. In December, the board approved similar changes which include the acceptance of a hospital's decision to determine who should receive CPR training for the following services: hospital-sponsored ambulatory care services, nursing services, rehabilitation programs/services, and anesthesia services. This particular change was made effective immediately.

The board also approved a revision which allows medical staff to substitute voluntary, outside educational efforts for in hospital-sponsored education programs. Although the revision was made effective immediately, its implementation is pending according to the discretion of the medical staffs.

### JCAH BOARD MAKES APPOINTMENTS

The board also made several appointments during its December meeting. It selected officers and committee members to serve on the Executive, Finance and Audit, Accreditation Standards-Survey Procedures and Planning and Organization Committees. The following appointments became effective January 1, 1981 for one year.

Daniel R. Dunlop MD, The American College of Surgeons (ACS), Massachusetts, was appointed chairman of the board's Finance and

Audit Committee. This committee has three other committee members including two medical doctors.

Richard Allyn MD, The American College of Physicians (ACP), Illinois, was selected as chairman of the board's Accreditation Committee. Thirteen others are also on this committee including nine medical doctors.

William Y. Rial MD, (AMA), Pennsylvania, was appointed chairman of the board's Standards-Survey Procedures Committee. Eight others will also serve on this committee including six physicians.

The JCAH Board also welcomed three new members. They are W. Daniel Barker, The American Hospital Association (AHA), Georgia; William S. Hotchkiss, MD, (AMA), and Robert T. Kelly, MD, (AMA), Minnesota. These new commissioners are replacing the following retiring members of the board: John W. Dauffman, (AHA); Richard E. Palmer, MD, (AMA); and Sprague H. Gardiner, MD, (AMA).

The JCAH is a private, not-for-profit voluntary organization that was established in 1951. It conducts programs to encourage members of the health professions, hospitals and other health-related facilities and services to promote high quality care.

The JCAH Board of Commissioners is composed of 21 members from the fields of medicine, dentistry and hospital administration. The ACP and the ACS each appoint three commissioners while the American Dental Association (ADA) appoints one commissioner. The AMA and the AHA each appoint seven commissioners. □

## AMA Delegates Vote To Eliminate PSROs

The House of Delegates of the American Medical Association voted to encourage the elimination of professional standards review organizations (PSROs) following extensive testimony during the AMA interim meeting held in December. The final vote was 104 to 100.

The AMA House of Delegates decided to restate AMA's former position on PSROs which says AMA will "continue professionally directed efforts to ensure that care provided to patients is of high quality, appropriate duration and is rendered in an appropriate setting

at a reasonable cost and to encourage the elimination of all government directed peer review programs including PSROs."

According to the *American Medical News* many of the physicians who addressed the House of Delegates on this matter appeared frustrated with the current PSRO program. Some of them opposed repeal of the program, however, until after the effects of the new Reagan administration are realized or until an improved peer review program is established. Otherwise, these physicians said the control of the program could be lost to others who don't understand the doctor's point of view.

The delegates also decided to delay approval of new guidelines for accrediting graduating medical education programs. Representatives of the Resident Physicians Section (RPS) told the delegates that revisions which had been proposed for the *Essentials of Accredited Residencies in Graduate Medical Education* would dilute the quality of graduate training programs. Although the proposed revisions are a result of six years of negotiations by parent members of the Liaison Committee on Graduate Medical Education (LCCME), some of the delegates pointed out that the revisions had received insufficient information from residents and medical students who would be most affected by the changes. Despite several requests for immediate approval of the revisions, the board decided to delay its decision until further negotiations on this matter could be made. The *AM News* says that according to one RPS spokesperson, residents and students are primarily concerned that evaluation and accreditation should not be linked to specialty certification, and that residents should be involved with medical staff in policy development in hospitals and in the training programs.

The quickest action taken by the House of Delegates during the December meeting was its decision to endorse its existing policy on National Health Insurance. The primary issues in the policy involve AMA's continued support for advocating the superiority of a voluntary, free-choice method of medical and health care delivery instead of a system which is dominated and controlled by the federal government. The *AM News* said the delegates responded quickly on this issue because they perceive a more favorable attitude with the new Reagan administration.

In response to a health planning law which is responsible for the establishment of many federally-regulated health care institutions, the House of Delegates has adopted a resolution supporting the immediate cessation of funding for this law. In addition, the resolution supports legislation to be introduced by AMA to the 97th Congress repealing the health planning law.

Other action taken by the AMA House of Delegates during the interim meeting included approval of a long-range program to promote better health habits among the public, approval of a report opposing Food and Drug Administration regulation on alphafetoprotein testing kits, approval of a study on the possibility of permitting direct membership into AMA and acceptance of a report which recognizes the health hazards of marijuana use, but which also recognizes that it can also have clinical value in some cases.

Contact the Oklahoma State Medical Association for copies of the reports and resolutions from AMA's interim meeting held in December. □

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## OUHSC Establishes Gerontology Center

Remember the baby-boom following World War II and the widespread expansion of some schools because of the influx of students who were born during that time? Individuals now in their 20's and 30's are members of the babyboom generation. Eventually, they will further increase the nation's already fastest, single-growing population — the elderly.



Joseph M. Holtzman, PhD

According to a recent Rand report, the elderly (over 65 years of age) now comprise 11% percent of the country's total population. But with the bulging babyboom generation, the report projects an increase in this figure to 12.5% by 1990 and by 2030 the figure is predicted to peak out at 18.3%. In other words, one in almost every five persons will be over 65 by 2030.

Another report issued by the federal government says that 40% of the elderly are 75 and over. This component of the elderly population is increasing at the most rapid rate and by the year 2000, the federal report predicts that those over 75 will comprise 45% of the elderly population.

### OKLAHOMA: EIGHTH OLDEST POPULATION

Oklahoma's population is ranked as the eighth oldest in the nation according to the Rand report. Twelve-and-one-half percent of the state's population consists of individuals over 65. This figure increases to more than 16% when those 60 and older are also included.

For the next 40 years, the elderly population is expected to swell. Such a trend is causing politicians, legislators, health care professionals and others to direct more of their attention toward expanding services to meet more of the needs of the growing elderly population.

Mrs Charlotte Heard, director of the Area-wide Aging Agency for central Oklahoma says low income levels are the most serious problems among many senior citizens in Oklahoma. According to data in the 1981-83 State Plan on Aging, 22% of the state's elderly are considered to be below the Official Office Management and Budget Poverty Level. Approximately 106,500 senior citizens are living on annual incomes of less than \$2,906. Many of

the programs provided through the various Area-wide Aging Agencies are established to alleviate some of the financial burdens including expenses for health care, food and others.

### NEW GERONTOLOGY CENTER FOR OKLAHOMA

In addition to low income levels, health care professionals are expressing concern for providing adequate health care to the increasingly elderly population. Oklahoma's large proportion of senior citizens has caused the University of Oklahoma Health Sciences Center to act toward equipping its future health care providers with a greater knowledge and understanding for treating the unique health needs of elderly patients.

Last summer, the health sciences center established a gerontology center, at 627 NE 15th Street, Oklahoma City. Joseph M. Holtzman, PhD, director of the gerontology center, says the facility serves several roles. One of its functions involves assisting various professional schools with the development of training programs in geriatrics.

Doctor Holtzman pointed out that geriatrics as a specialized medical discipline in the United States is a controversial issue. He explained that medical professionals who argue against specialization say the need for geriatricians is nonexistent because most physicians treat the elderly in their practices anyway. Those favoring specialization say that many of the elderly's health needs are unique enough to require a specialist.

Only a handful of geriatricians are practicing in the United States; Oklahoma has none. Doctor Holtzman explained that residency training was not available in this country for most of the currently practicing geriatricians and that many of them had to complete their residency training in Europe where geriatrics is recognized as a specialty.

Although specialization in geriatrics is still a controversial subject, the growing elderly population has caused a movement toward increasing the level of *training* in geriatrics for medical students at all levels of medical education. Few undergraduates had been exposed to any type of training in geriatrics until the middle 1970's says Dr Holtzman. Until that time, Dr Holtzman said, only three of the country's medical schools required courses in geriatrics while only 30 of the nation's medical schools offered training in geriatrics even as electives. Now, more health care institutions

including medical schools, are implementing such training programs in their curriculums. Doctor Holtzman said that nearly two-thirds of the country's medical schools are now offering programs for training in geriatrics or they are in the process of developing such programs. He added that a few institutions in the United States have included even residency programs. These institutions are now producing America's first generation of trained geriatricians.

Oklahoma's new gerontology center has been assisting various health care colleges in planning programs for training in geriatrics. The center is currently assisting the Departments of Internal Medicine and Psychiatry at the OU Health Sciences Center with a proposal for such programs. In addition, the gerontology center has already helped in the development of training programs for the dental and public health schools. Doctor Holtzman says the levels of programs in which the center has offered assistance include undergraduate through residency with some continuing medical education courses. He also said some of these programs should be available to students by next fall.

Another role assumed by the new gerontology center involves its function as a resource center for state agencies, physicians and government entities, as well as for the health sciences center. In addition, the center conducts research. Some of its research projects now under consideration include therapy for the elderly, perceptual training (attitudes of health care professionals toward the elderly,) and intergenerational differences (similarities and differences between the younger and the elderly in their behavior toward the same symptoms).

The center is funded entirely by the OU health sciences center.

"This demonstrates great commitment on the part of the university toward the center and the university should be commended for it," Dr Holtzman said.

Eventually, however, Dr Holtzman says the center will probably break away to operate on a more independent basis. It is already drafting proposals requesting federal assistance for some of its projects. In addition, the gerontology center is available for special research projects on a joint-cash basis. □

## Trustees Request Updated List of Specialty Society Presidents

*The OSMA Board of Trustees wishes to update the association's list of Oklahoma specialty society presidents. The list is printed below. Please contact the OSMA Journal if you are aware of changes that should be made. Call 405/843-9571 or write to the Oklahoma State Medical Journal, 601 NW Expressway, Oklahoma City, OK 73118.*

### ALLERGY

Oklahoma Allergy Society  
V. O. Laing, MD, President  
107 Utica Square Medical Center  
Tulsa, OK 74114 918/749-7367

### ANESTHESIOLOGY

Oklahoma Society of Anesthesiologists  
Joseph L. Martin, MD, President  
3917 Ann Arbor  
Oklahoma City, OK 73122 405/787-2922

### DERMATOLOGY

Oklahoma State Dermatology Society  
Lawrence J. Gregg, MD, President  
P. O. Box 52588  
Tulsa, OK 74152 918/749-2261

### EMERGENCY MEDICINE

Oklahoma Chapter, American College of  
Emergency Physicians  
Bruce L. Storms, MD, President  
2220 Iowa  
Chickasha, OK 73018 405/224-2300

### FAMILY PRACTICE

Oklahoma Academy of Family Physicians  
Kenneth W. Whittington, MD, President  
7330 NW 23rd  
Bethany, OK 73008 405/789-4150

### INTERNAL MEDICINE

Oklahoma Society of Internal Medicine  
Boyd Shook, MD, President  
1211 N. Shartel  
Oklahoma City, OK 73103 405/236-2485

### NEUROSURGERY

Oklahoma Neurosurgical Society  
Robert L. Imler, MD, President  
1705 E. 19th, #210  
Tulsa, OK 74104 918/749-0762



## **OBSTETRICS AND GYNECOLOGY**

Oklahoma Section, American College of OB-GYN

Earl Bricker, MD, President

5252 N. Meridian

Oklahoma City, OK 73112 405/946-5528

Okla. City Obstetrical and Gynecological Society

A. Standley Porter, MD, President

4200 S. Douglas

Oklahoma City, OK 73109 405/632-5543

Tulsa OB-GYN Society

Max A. Deardorff, MD

6465 S. Yale

Tulsa, OK 74177 918/492-4343

## **OCCUPATIONAL MEDICINE**

Oklahoma Occupational Medical Association

Veronica K. Yates, MD, President

P.O. Box 300

Tulsa, OK 74102 918/586-4427

## **OPHTHALMOLOGY**

Oklahoma State Society of Ophthalmologists

J. C. Cole, MD, President

6565 South Yale, #503

Tulsa, OK 74177 918/492-1722

## **ORTHOPAEDIC**

Oklahoma Orthopaedic Society

Henry Modrak, MD, President

6465 S. Yale, #606

Tulsa, OK 74177 918/492-3133

## **OTOLOGY, RHINOLOGY, AND LARYNGOLOGY**

Oklahoma Academy of Otolaryngology

John Campbell, MD, President

4720 South Harvard

Tulsa, OK 74135 918/749-8393

## **PATHOLOGY**

Oklahoma State Association of Pathologists

Larry W. Cartmell, MD, President

1414 Arlington, #2500

Ada, OK 73820 405/882-9595

## **PEDIATRICS**

Oklahoma Chapter, American Academy of Pediatrics

James E. Mays, Jr., MD, President

701 NE 10th

Oklahoma City, OK 73104 405/271-2788

Central Oklahoma Pediatric Society

David Turbeville, MD, President

4200 West Memorial Road

Oklahoma City, OK 73120 405/751-4931

## **PLASTIC SURGERY**

Oklahoma Society of Plastic Surgeons, Inc.

David W. Foerster, MD, President

3131 NW Expressway

Oklahoma City, OK 73112 405/848-3459

## **PSYCHIATRY**

The American Psychiatric Association, Oklahoma Branch

Loraine Schmidt, MD, President

227 Merkle Drive

Norman, OK 73069 405/321-5102

## **RADIOLOGY**

Oklahoma State Radiological Society

Ralf E. Taupman, MD, President

204 Medical Towers

Oklahoma City, OK 73112 405/848-3711

## **SURGERY AND SURGICAL SPECIALTIES**

Oklahoma Surgical Association

Leroy Long, MD, President

1211 N. Shartel

Oklahoma City, OK 73103 405/235-9396

Oklahoma Chapter, American College of Surgeons

James H. Lindsey, MD, President

415 W. Guy Street

Pauls Valley, OK 73075 405/238-6431

## **UROLOGY**

Oklahoma Urological Association

Johnny B. Roy, MD, President

921 NE 13th Street

Oklahoma City, OK 73104 405/271-6900 □

## **Racquet Sports Are Causing More Eye Injuries**

The nationwide trend of exercising to become slimmer and trimmer, has helped push into popularity the sports of tennis and racquetball. Although these sports are great for toning the body, they have also caused an increase in the number of eye injuries say some ophthalmologists.

J. C. Cole, MD, president of the Oklahoma

State Society of Ophthalmologists, said eye injuries have definitely increased within the last five-or-six years. He says most of the injuries sustained in these sports result in hyphema while other injuries can cause cataracts or even blindness.

Doctor Cole recommends the use by all participants in such sports of protective eye goggles to shield the eyes from injuries.

Another doctor, Marcos T. Doxanas, MD, eye specialist at Greater Baltimore Medical Center, has reported on the growing incidence of eye injuries in Baltimore racquetball players. He explained that most of the injuries recorded at the Baltimore Medical Center were gashes or bruises over the brow caused when a player struck his or her own forehead with the racquet. He said all racquet sports including tennis and squash produce some injuries, but that most of the eye injuries are occurring in racquetball players.

Doctor Doxanas also pointed out that most players could probably prevent eye injuries by wearing either sports glasses or sports eye guards. □

## Physician Population Will Continue To Grow

Many people have recognized that, at the current rate of growth in the nation's physician population, the country could in the near future experience a surplus of doctors. Despite this fact, most medical education systems have not yet been altered to decrease the number of medical students. Consequently, the nation will continue to experience a physician increase says a publication issued by the American Medical Association.

Last year the total enrollment in the 126 US medical schools was 64,195 which was an increase of 2.3 % over the enrollment in the previous year. Enrollment in the freshman class for last year was 17,014 compared to 16,620 in the previous year. The number of women and ethnic minorities enrolling in medical schools is also climbing.

Last year the number of medical school graduates hit a record high of 15,135 which is only a slight increase over the number of graduates in the year before.

The report cited one decreasing figure — the number of applicants. However, there are still 2.1 applicants for each place in freshman classes. □

## CALENDAR OF EVENTS

### March 8-13

Eighth Annual Critical Care Medicine Course. Presented and sponsored by the Department of Medicine of the University of Oklahoma health sciences center. Sheraton Century Hotel and Myriad Convention Center, downtown, Oklahoma City.

### March 15-20

Oklahoma Physicians Spring Retreat, Padre Island. Office of CME, College of Medicine, OUHSC or call course coordinator, Irwin H. Brown, MD, 405 946-0548.

### May 7-10

The 1981 Annual Meeting of the Oklahoma State Medical Association will be held May 7-10 at the Shangri-La Lodge on Grand Lake in Afton, Oklahoma. For reservations, write directly to the Shangri-La Lodge, Route 3, Afton, OK 74331.

Physicians who wish to submit information for the OSMA Calendar of Events should contact *The Journal*, Oklahoma State Medical Association at least two months in advance. Write to *OSMA Journal*, 601 N.W. Expressway, Oklahoma City, Oklahoma, 73118 or call 405 843-9571. □

## ATTENTION COUNTY MEDICAL SOCIETIES

All resolutions to be presented to the Annual Meeting of the OSMA House of Delegates **MUST** be received at the OSMA Headquarters, 601 N.E. Expressway, Oklahoma City, OK 73118, at least thirty days prior to the meeting. Deadline for submission of resolutions this year is April 7, 1981.

Executives of the OSMA office will lend any assistance possible in the drafting of these resolutions.



## Book Reviews

**I'M DANCING AS FAST AS I CAN.** By Barbara Gordon. New York, Harper & Row, Publishers, 1979. 313 pages

This is the story of Barbara Gordon, a 40-year-old New York career woman, and her experience with mental illness precipitated by drug abuse. Born in Miami Beach, after college she relocated in the city of New York where she gradually worked her way up in the communication industry to become an award winning television producer. She developed the habit of taking a minor tranquilizer prescribed for an anxiety state. When her daily dose reached 30 mg she abruptly decided to terminate medication. This was followed by severe withdrawal manifestations, including psychotic episodes with feelings of unreality. All of this led to her admission to the locked ward of a psychiatric hospital where she remained for more than two weeks. Still, having serious anxiety attacks and considering suicide after her discharge, she began a frustrating search for a private psychotherapist. Her new therapist produced no improvement, and she entered still another psychiatric hospital. Fortunately, here she was assigned a more understanding therapist, a psychologist. There is a detailed account of her relationship with other patients in the hospital and hospital attendants as well as her infatuation with a younger male patient. Particularly dismaying in regard to mental health treatment policies are her accounts of the inflexibility of the system which did not permit a patient to change to a more suitable therapist. After several months she was discharged.

Upon her return to society she experienced the effects of prejudice and suspicion that former psychiatric patients so frequently encounter. During her efforts to locate a psychotherapist she encountered a wide variety of physicians, some of whom "wouldn't dare practice in other branches of the medical establishment." Her devastating attack on psychiatrists is understandable. Not only did she waste an enormous amount of money on them, but at various times they also diagnosed her as having schizophrenia, manic-depressive psychosis, borderline psychosis, serious depression, and hysteria. If her story is true as stated, it is incredulous that anyone who calls himself a physician could handle a patient in as superfi-

cial and unsatisfactory manner as was Barbara Gordon. Most of the psychiatrists, she reports, made no attempt to determine the nature of her illness, did not examine her, but simply started her on symptomatic medication.

Another medical lesson to be learned from this book concerns the severity of the withdrawal symptoms associated with the unmonitored use of tranquilizers. Perhaps the most important lesson, however, is that the psychiatrists and other practitioners in the field of mental illness need to establish an accurate diagnosis in so far as possible in each case before embarking the patient on a prolonged and expensive course of treatment.

This is a harrowing but interesting account.  
*Harris D. Riley, Jr., MD*

**Burrows Textbook of Microbiology**, 21st edition. By Bob A. Freeman. Philadelphia. W. G. Saunders Co., 1979. 1038 pages with illustrations, Price \$36.50

This well known textbook began in 1908 under the title of *General Bacteriology*, and the first edition of 545 pages set forth the essential knowledge of microorganisms of that time. In 1938 William Burrows assumed authorship and saw it through nine editions. Over this time the textbook evolved into a standard reference in medical microbiology. Since Dr Burrows' death in 1978 Dr Freeman has assumed the editorship. This edition has been extensively revised to include new materials and to point out new directions in microbiology. Most of the chapters on pathogenic bacteria have been extensively reorganized, and the book contains several new sections. The virology section is introduced by a new chapter on the basic aspects of animal virology, and succeeding chapters have been revised to reflect modern developments in this field.

The textbook is organized in rather typical fashion. The introductory chapters focus on historical aspects of microbiology and the structure and growth of bacteria. Metabolism, genetics, antibacterial agents, and taxonomy are treated in individual chapters. Three chapters are devoted to immunology. The remainder of the book contains chapters on the various aspects of microorganisms that are pathogenic for man, and it gives occasional re-

ferences to animal and plant pathogens as nonpathogenic organisms.

The organization of individual chapters varies depending on the topic and the author. The text is generally well-edited for spelling and typographic errors. Photographs and illustrations are generally satisfactory, and are conveniently located near the textual material that they clarify. All the photographs are black and white. Each chapter includes a list of references and of recommended reading.

The content of the chapters varies with the topic and the author. More than 300 pages are devoted to discussion of individual bacteria and only about 160 pages to viruses. The discussion of parasitology is limited to 60 pages and that of mycology to 65 pages. The chapters describing individual bacteria and viruses are often didactic. Perhaps more aggressive editing of some of the descriptive details about the

organism would have provided more space to acquaint the student with a better feel of the relevance of the remaining details.

Certain new developments such as Legionnaires disease are included. However, one can quickly note the absence of certain other key developments. For example, there is no discussion of the role of *Chlamydia trachomatis* in respiratory disease in children, no discussion of infant botulism or of the role of clostridia in antibiotic-induced pseudomembranous colitis. The role of opportunistic bacteria and diseases of the compromised host receives only scanty mention. Some of the more recently defined organisms such as *Eikenella corrodens* are not included. In places the more recently accepted names (*Enterobacter* instead of *Aerobacter*) are not included.

This edition, although it could be further improved, will allow this textbook to maintain its place as a standard reference. *Harris D. Riley, Jr., MD* □

## Miscellaneous Advertisements

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## Your Battle

It was Saturday afternoon. A fine day, at home with the family, in old clothes, enjoying the children and letting them help you do some of the countless things you'd put off for so long. The phone rang, your wife answered it and, as you had expected, said the call was for you. The brief conversation relieved your subdued agitation. A patient had tried to contact her physician, an associate of yours, to remind him to notify her pharmacy of a prescription renewal. She guessed he was out of town as several calls to his residence had been unanswered. You didn't have to leave, and you had spared your colleague an annoyance, returning one of the many similar courtesies he had shown you. All that was needed was to call the pharmacy designated by the caller who was ingratiating and thoughtful; she had given you the phone number and spared you the task of looking it up. You made a memo, called in the prescription and returned to the bountiful pleasures of the afternoon.

Monday morning you encountered your colleague at the office. Although you had left the memo at home, you remembered the call and briefly narrated the details. You were shocked to discover that he had been home all day Saturday and had no patient such as the one you had named. Furthermore, he rarely prescribed the restricted drug you had caused to be dispensed with your well-intentioned telephone call. The atmosphere of skepticism contrasted sharply with the gratitude you had expected and, mixed with your feelings of culpable stupidity, made you a bit resentful.

You'd been *had*. But you took some pallid comfort in the fact that you had limited the quantity of the drug you had prescribed; just enough to last until Monday afternoon, by which time your colleague would be available. When you discovered, some weeks later, that you had joined eight other physicians of your community in the same misadventure on that same afternoon, your salvaged smugness vanished. Then your sense of compassion disintegrated when you learned that each one of the more than one-hundred tablets you and your contemporary victims had dispensed from the nine pharmacies involved had a street value of two dollars and had been sold to teenagers and subteenagers in your community before the sun had set on that pleasant afternoon.

It was then you realized you had been born in one of those minutes immortalized by P. T. Barnum. You became enraged by your own naivete. But how could you have known? By

nature, you are compassionate and trusting, willing to help when help is needed. You had been in practice several years and the almost endless years of education and training had provided little if any preparation for such encounters. How can it be, you wonder, that we get so smart so late?

Actually, it is long past-due that we, who hold the privilege of prescribing drugs, learn as many of the tricks of the drug-traffic trade as possible, and as quickly as possible. Our entire nation is being terrorized by the crimes committed by drug users and drug pushers. Statistics tell us that many such sociopaths are introduced to drugs through legitimate but misappropriated prescriptions, so it is imperative that we do everything in our power to minimize the abuse of our privilege and to participate in the world-wide war against the illicit traffic in drugs.

Your help is needed in gathering and disseminating the intelligence necessary to engage in this war. We are asking you to share with us your knowledge of—and your experiences with—drug abusers. There are so few opportunities for us to obtain formal instruction about the problem that we must create some of our own and synthesize others. Therefore, the pages of this journal are being made available to every reader who will share with us the details of encounters with drug abusers. You don't have to have writing talent; we can provide it. You can remain anonymous; we don't need your name. You don't have to be a physician or a nurse or a pharmacist. If your anecdote can teach us what to expect, help us learn what we need to know, expose our stupidity or just remind us of our vulnerability and gullibility, please accept our invitation to this war. Let us print your contributions to our continuing but long-neglected medical education. Mail them to us, *The Journal of the Oklahoma State Medical Association*, 601 N.W. Expressway, Oklahoma City, OK 73118.

And if you *have* been victimized by drug abusers, there's a good chance you haven't yet realized it. In case you're wondering, look for possible answers in our newest feature, "Drugs and Dirty Tricks." We hope it will help win a battle in this deadly serious war. Your battle in our war.

MRJ

Over the past nine years, I have served seven years on the grievance committee of my metropolitan county medical society. Because of my present position, I have been informed of grievances against physicians over the state. Unfortunately, I have heard a large number of cases against physicians during this time.



It appears to me that the primary problem in most of the grievances is a lack of communication between the patient and the physician. Quite frequently, the patient does not feel the physician allowed him or her the time to tell of the problems that caused the visit to the doctor.

An important educational process for a physician is to engage a group of persons in conversation about medical practice, without their knowing that he is a doctor. I have done this on numerous occasions, and there are two complaints that are mentioned repeatedly. The first is that the "doctor doesn't listen to me," with the patient interpreting this as lack of concern by the doctor with assembly/line medicine. The other complaint is related to large fees, but this often refers to physicians who do not take time to listen or explain. Patients do not usually complain about fees from physicians who show a personal interest, but file grievances when they feel that the physician is more interested in money than they are

about them. We all know that the presenting complaint of the patient is not always what actually brings them to the doctor, but they are hoping that the real reason will appear during the physician's interrogation.

Probably no facet of medical education is emphasized to the student more than listening to the patient and taking a good history. However, in these days of modern technology, the history is sometimes seen as a lost art. But the history continues to serve two most significant purposes. It is very important in making a diagnosis in most medical disciplines, and it also affords communication with the patient which allows for effective treatment. A sympathetic physician taking a thorough history allows the patient to talk, and the patient feels that someone actually cares.

All of us who write this "President's Page" have been concerned about government interference in the private practice of medicine. I certainly am, but we must also be sure that our house is in order. As I noted in a previous issue of this *Journal*, the relationship between the patient and the physician resulting in good care and satisfaction to the patient will be the primary criteria for the survival of fee-for-service medicine.

If *primum non nocere* is the first commandment of practicing good medicine, the Listen to the Patient must follow very closely behind.

A handwritten signature in cursive script that reads "Lloyd S. Miller, MD".



# Analysis of The Damon Smoking Control Program A Study of Hypnosis on Controlling Cigarette Smoking

MITCHELL V. OWENS, EdD  
JOHN T. SAMARAS, PhD

*Hypnosis does work. It is an easy, painless  
way to abstain from cigarette smoking.  
However, concomitant with hypnotherapy  
one must be motivated to quit.*

## INTRODUCTION

Hypnosis has been recognized as a method of treatment by the American Medical Association, the British Medical Association and other professional medical groups for a number of years. However, there has been continued concern about its use by persons who are not professionally trained.<sup>1</sup>

There appears to be little consensus among the professionals in the field about the nature of hypnosis. However, they usually agree that it is a powerful tool, should generally be used as part of a more comprehensive treatment program, and that its therapeutic properties

consist of an intense transference relationship between the patients and the therapists. In addition, there is also a change in the patient's subjective state of mind accompanied by a sense of relaxation.<sup>2</sup>

It appears that hypnosis is an important factor in helping smokers to abstain from smoking cigarettes, however, different forms of treatment with hypnotherapy apparently result in a variety of outcomes. Grosz<sup>3</sup> reported a total abstinence from cigarette smoking among 43% of the men and 44% of the women (479 subjects) after three months. Dr Grosz' treatment of the 479 subjects in this study consisted of a single session of individual hypnotherapy. Crasilneck and Hall<sup>4</sup> reported an 82% abstinence rate from among 67 cigarette smokers who had received four, forty-minute individual hypnotic sessions. The range in times from the last hypnotic session to sampling in this study varied from one-to-four years with a mean of two years, one month. Saunders,<sup>5</sup> from the University of North Carolina, reported that 68% of a small group of smokers involved in "mutual group hypnosis," described by the researcher as a method by which one hypnotized subject gives suggestions to another hypnotized subject, had abstained from smoking

cigarettes for a period of ten months from the date of the first session.

This study is concerned with a large group of cigarette smokers who might be called "hard core" since they smoked an average of 35 cigarettes daily. The subjects voluntarily attended a single session of hypnotherapy conducted by Damon Reinbold, a 37-year-old hypnotist, who reports that he learned hypnosis at Marquette University in Milwaukee. Mr Reinbold has spent many years in helping people stop smoking and lose weight through large, group hypnotic sessions. As part of the group smoking sessions, he also makes cassette tapes available to each of the participants, as a reinforcement tool.

This research was designed to assess the effectiveness of the Damon Smoking Program after a given period of time. It also attempts to uncover more data on the smoker who attends these sessions and to acquire information that would help make large group hypnotic sessions for cigarette smokers more successful.

#### RESULTS

This section will explore the effectiveness of the Damon Smoking Control program in relation to a number of characteristics. It must be assumed that there is a built-in motivational factor to quit smoking by those who attended the anti-smoking sessions. This, however, should not affect the study for the literature is replete with cases of people desiring to quit

through a number of treatment methods that were unsuccessful.

A total of 468 people responded to the questionnaire revealing a number of interesting findings. Of these respondents, 129 stated that they had quit smoking. It is important to note here that the evaluation interview process took place six-to-nine months after the Damon Hypnosis sessions. The first session was conducted in October, 1978 and the second in February, 1979. The questionnaires were mailed out in August, 1979. A "quit" rate of 27.53% six-to-nine months after a *single* hypnosis session would appear to be a significant achievement. However, an analysis of years of smoking, daily cigarette consumption, age, smokers who have tried to quit before, and sex, are also important variables which need to be examined in order to give the study a more concise perspective.

The first variable investigated was the present smoking status in relation to the number of years of smoking. Table 1, although not statistically significant, presents some interesting findings. For example, of the 465 respondents (three questionnaires were unusable for this analysis) 248 or 53.33% had not changed their smoking status regardless of years smoked, but 15.05% were smoking less and 27.33% had quit completely. Of the smokers who quit, 40 had smoked for more than 21 years, 24 for more than 31 years and seven for over 41 years. This represents 55.47% of the 128 persons who had quit smoking, and indicates that people who have smoked for a long period of time (more than 21 years) can be motivated to quit as well

TABLE 1  
Present Smoking Status Based on Years of Smoking

Present Status	Years of Smoking					
Frequency	1-10	11-20	21-30	31-40	41+	Total
Smoking More	5 1.08%	7 1.51%	2 .43%	4 .86%	1 .22%	19 4.09%
Smoking Same	23 4.95%	81 17.42%	66 14.91%	52 11.18%	26 5.59%	238 53.33%
Smoking Less	11 2.37%	16 3.44%	19 4.09%	17 3.66%	7 1.51%	70 15.05%
Quit	21 4.52%	36 7.74%	40 8.60%	24 5.16%	7 1.51%	128 27.53%
Totals	60 12.90%	140 30.11%	127 27.31%	97 20.86%	41 8.82%	465 100.00%

$$X^2 = 15.23 \quad DF = 12 \quad p = .23$$



TABLE 2  
Present Smoking Status Based on Daily Cigarette Consumption

Present Status Frequency	Daily Cigarette Consumption					Total
	1-10	11-20	21-30	31-40	41+	
	1	11	4	2	0	18
Smoking More	.21%	2.36%	.86%	.43%	.00%	3.85%
	0	77	74	66	32	249
Smoking Same	.00%	16.49%	15.85%	14.13%	6.85%	53.32%
	1	6	18	22	24	71
Smoking Less	.21%	1.28%	3.85%	4.71%	5.14%	15.20%
	3	26	18	49	33	129
Quit	.64%	5.57%	3.85%	10.49%	7.07%	27.62%
	5	120	114	139	89	467
Totals	1.07%	25.70%	24.41%	29.76%	19.06%	100.00%

$$X^2 = 63.33 \quad DF = 12 \quad p = .0001$$

as those who have smoked for a lesser period of time.

Although the number of years of smoking is an important variable, the impact of daily cigarette consumption is equally important and quite revealing. As previously indicated, 467 questionnaires were involved in this component of the study, with slightly more than half (53.32%) not having changed their smoking habits, 3.85% smoking more, 15.20% smoking less, and 27.62% having quit. Of those who had quit, 33 or 7.07% of the respondents had been smoking more than two packs a day and another 49 or 10.49% had smoked more than one-and-a-half packs daily. To put it another way, of the number of smokers who had quit

63.57% had smoked more than one-and-a-half packs each day.

Table 2 shows a positive relationship between the number of cigarettes smoked daily and the present status of smokers after attending the Damon Smoking Control Session. This category is statistically significant.

Table 3 shows the relationship between age and the number of cigarettes smoked daily after the Damon Smoking Control session. One interpretation here is that the greatest concentration of former smokers were in the age categories 25 through 54 years constituting 22.07% of the total number of smokers (128) who had quit. It is interesting to note the tapering off in the cells at the extreme age

TABLE 3  
Present Smoking Status Based on Age Groups

Age Group (years)	Daily Cigarette Consumption						Totals
	Quit	1-10	11-20	21-30	31-40	41+	
	7	1	4	5	6	0	23
25	1.52%	.22%	.87%	1.08%	1.30%	0.00%	4.98%
	30	1	21	33	16	7	108
23-34	6.49%	.22%	4.55%	7.14%	3.46%	1.52%	23.38%
	42	6	19	26	19	16	128
35-44	9.09%	1.30%	4.11%	5.63%	4.11%	3.46%	27.71%
	30	1	21	24	22	11	109
45-54	6.49%	.22%	4.55%	5.19%	4.76%	2.38%	23.59%
	15	3	33	12	8	4	75
55-64	3.25%	.65%	7.14%	2.60%	1.73%	.87%	16.23%
	4	0	6	4	5	0	19
64	.87%	00.00%	1.30%	.87%	1.08%	0.00%	4.11%
	128	12	104	104	76	38	462
Totals	27.71%	2.60%	22.51%	22.51%	16.45%	8.23%	100.00%

$$X^2 = 47.66 \quad DF = 25 \quad p = .0041$$

TABLE 4  
Present Smoking Status Based on Smokers Who Quit Before

Present Status Frequency	Have Not Quit Before	Have Quit Before	Totals
Smoking More	1 .21%	18 3.85%	19 4.06%
Smoking Same	42 8.97%	207 44.23%	249 53.21%
Smoking Less	8 1.71%	63 13.46%	71 15.17%
Quit	18 3.85%	111 23.72%	129 27.56%
Totals	69 14.74%	399 85.26%	468 100.00%

$$X^2 = 3.00 \quad DF = 3 \quad p = .39$$

TABLE 5  
Present Smoking Status Based on Rating of Session

Rating of Session	Present Smoking Status				Totals
	Smoking More	Smoking Same	Smoking Less	Quit	
Very Successful	2 .44%	23 5.04%	21 4.61%	114 25.00%	160 35.09%
Moderately	3 .66%	45 9.87%	26 5.70%	11 2.41%	85 18.64%
Not Very	4 .88%	75 16.45%	14 3.07%	1 .22%	94 20.61%
Unsuccessful	9 1.97%	98 21.49%	7 1.54%	3 .66%	117 25.66%
Totals	18 3.95%	241 52.85%	68 14.91%	129 28.29%	456 100.00%

$$X^2 = 270.11 \quad DF = 9 \quad p = .0001$$

TABLE 6  
Present Smoking Status Based on Sex

Present Status Frequency	Females	Males	Totals
Smoking More (Column percentages: 13 ÷ 269; 6 ÷ 197)	13 2.79% 4.83%	6 1.29% 3.05%	19 4.08%
Smoking Same (152 ÷ 269; 96 ÷ 197)	152 32.62% 56.51%	96 20.60% 48.73%	248 53.22%
Smoking Less (41 ÷ 269; 30 ÷ 197)	41 8.80% 15.24%	30 6.44% 15.23%	71 15.24%
Quit (63 ÷ 269; 65 ÷ 197)	63 13.52% 23.42%	65 13.95% 32.99%	128 27.47%
Totals	269 57.73%	197 42.27%	466 100.00%

$$X^2 = 5.98 \quad DF = 3 \quad p = .11$$



categories. Almost in every instance the values decrease. For example, people in the under 25 and over 64 groups represent the lowest percentage of those who quit as well as the lowest number of respondents. This can be construed that these two age groups represented the lowest number of attendees. However of the 23 smokers who were under 25 years of age, seven or 30.43% quit smoking and four or 20.43% of the 19 smokers over 64 years of age have quit smoking.

An issue which frequently arises in smoking control programs is the question of whether one has attempted to quit smoking before. Of the 468 respondents, 399 stated that they had tried to quit before and ultimately 111 of the 399 did quit after attending the Damon program. Table 4 further shows of the 69 attendees who had never stopped smoking, 18 have since quit. Of the 456 persons who responded to the question, "How do you rate the Damon Smoking Control Session?" the responses were as follows:

	Number	Percent
Very successful	160	35.09
Moderately successful	85	18.64
Not very successful	94	20.61
Quite unsuccessful	117	25.66
	465	100.00

The relationship between the responses and the respondents' present smoking status is statistically significant.

Table 5, as predicted, shows that of the 160 or 35.09% who considered the program "very successful," 114 have quit smoking and 21 are smoking less. Also, of the 85 who judged the program "moderately successful," 11 quit and 26 are smoking less. In other words, 245 of the 456 respondents appraised the session as "moderately" or "very successful" and this subgroup comprised 125 of the 129 who quit.

The issue of sex is interesting to observe in this study. In fact, the relationship between males and females and their present smoking status is statistically significant.

Of the 466 respondents, 269 were females and 197 males. The interesting point is the difference between the sexes in the "quit" category. Whereas 32.99% males quit smoking, only 23.42% females stopped. Slightly more than 15% of males and females who did not quit are now smoking less. However a larger percentage of the females who did not quit smoking are now smoking the same number of cigarettes or more per day. (See Table 6).

## SUMMARY AND CONCLUSIONS

Ever since the Surgeon General's report came out in the early 1960's smoking has been known to be a health hazard. However, smokers have not rushed to avail themselves of the opportunities to quit. Hypnotherapy does appear, however, to be an easy, quite painless way of abstaining from cigarette smoking. In this study one should not be discouraged to learn that only slightly more than one-fourth of the respondents quit smoking. In fact 27.53% of those who did attend the anti-smoking session did quit, and hypnosis does appear to work even in large group sessions. But concomitant with hypnosis, it is apparent that one must be motivated to quit, at least motivated enough to attend an anti-smoking session.

It has been well established by educators, psychologists, and researchers that positive reinforcement of behavior is needed for positive results. Consequently, it would appear that follow-up or additional sessions would in-

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*Damon Reinbold is one of the originators of the Damon & Grace Smoking Cessation and Weight Loss Programs. He was educated at Marquette and California State University. His program in smoking cessation is conducted for large groups of people and more than 600,000 persons have attended smoking and weight loss sessions.*



crease the number of non-smokers. This need for reinforcement was indicated by the fact that nearly half of the respondents expressed a desire for additional sessions. Although Damon offers a cassette tape as part of the smoking control program, only 14 "quitters" were using it as a booster, consequently booster tapes do not appear to be an answer.

People can quit smoking if they try, but they need help. It appears that it may be more difficult for those who have smoked for more than 40 years or who have been smoking more than

two packs a day to quit, but this study indicated that it can be done.

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# A Seminar on Antibiotics VII

## Erythromycin and Clindamycin

EVERETT R. RHOADES, MD

*Erythromycin and clindamycin are useful antibiotics in the treatment of many infections caused by Gram-positive organisms, especially for ambulatory patients. They are often used topically in the treatment of acne.*

### INTRODUCTION

Erythromycin was isolated from *Streptomyces erythreus* in 1952 and belongs to a class of drugs termed "macrolides" on the basis of a macrocyclic lactone ring. Although there are a number of examples of macrolides (ie, oleandomycin, spiramycin), only erythromycin has enjoyed wide usage. Erythromycin also contains an aminoglycosidic linkage and hence, might properly be called an aminoglycoside. However, it is not related to the antibiotics commonly designated "aminoglycosides," and has an entirely different spectrum of activity. Some preparations of erythromycin are shown in Table 1.

Table 1  
SOME PREPARATIONS OF  
ERYTHROMYCIN

Generic Form	Commercial Forms	Company
Erythromycin (base)	E-mycin	Upjohn
	Ilotycin	Dista
	Robimycin	Robins
	RP-mycin	Reid-Provident
Erythromycin-Estolate	Ilosone	Dista
Erythromycin Ethyl Succinate	E.E.S.	Abbott
	Pediamycin	Ross
Erythromycin Stearate	Bristamycin	Bristol
	Erythrocin	Abbott
	Stearate	
	Erypar	Parke-Davis
	Ethril	Squibb
	Pfizer-E	Pfipharmecs

### Intravenous

Erythromycin Gluco- hoptenate	Ilotycin	Dista
	Gluceptate	
Erythromycin Lacto- bionate	Erythrocin	Abbott
	Lactobionate- IV	

### Topical

Erythromycin	Hoechst-Roussel
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### MECHANISM OF ACTION

Erythromycin exerts its major action at the ribosome. In contrast to tetracyclines and aminoglycosides which affect the 30-S subunit, erythromycin attaches to the 50-S subunit of the bacterial ribosome. It attaches at a point very close to that for clindamycin and chloramphenicol. Thus, erythromycin is an in-

## Erythromycin / RHOADES

hibitor of protein synthesis. Even though it attaches near the same point on the ribosome, it has a considerably different spectrum than tetracyclines or chloramphenicol. From knowledge of antibiotics acting at the ribosomal level one might predict that erythromycin would tend to be "static" and that organisms might develop resistance rapidly.

### PHARMACOLOGY

Erythromycin base is slightly alkaline and some activity is destroyed by gastric juice. Absorption is improved in the fasting state. Some preparations are coated to permit passage through the stomach without destruction. An esterified form produces higher blood levels. Erythromycin diffuses well into body "spaces" including the cerebrospinal fluid (CSF) provided meningeal inflammation is present. It crosses the placenta. Large amounts are excreted in the bile. In contrast to chloramphenicol, mitochondrial cell membranes of mammals seem to exclude erythromycin, probably accounting for its relative lack of toxicity. A summary of pharmacologic properties is shown in Table 2.

### CLINICAL USAGE

Erythromycin is primarily used to treat infections caused by gram-positive cocci, especially where the physician wishes to avoid penicillin. It is useful in ambulatory patients

with group A streptococcal or pneumococcal infections. About 90% of *Streptococcus faecalis* isolates are susceptible. For several years, erythromycin tended to be neglected in favor of other more "exciting" antibiotics. The discovery of the susceptibility of *Legionella pneumophila* to erythromycin has provided considerably more use of erythromycin, for instance in treating patients with severe pneumonia when the cause is not known. It is widely employed in the treatment of mycoplasmal infections, in certain patients with "non-specific" urethritis, and in some patients with gonorrhea who are allergic to penicillin. It is considered one of the safest antibiotics to give during pregnancy. Some clinical indications for erythromycin are shown in Table 3. While some of the small gram-negative coccobacilli such as *Neisseria* and *Hemophilus* are susceptible, other antibiotics are usually more effective for these. Erythromycin, both orally and topically, has been used with increasing frequency for the treatment of acne.

### UNTOWARD SIDE EFFECTS

It has been said that erythromycin is the safest antibiotic in clinical use and it indeed has a wide therapeutic index. Gastrointestinal distress is fairly common. The most interesting effect is the cholestatic jaundice produced especially by the esterified form. This syndrome usually develops after 10 days of the initial course and is characterized by fever, eosinophilia, elevated serum transaminase and bilirubin. Second episodes may occur within

Table 2  
PHARMACOLOGY OF ERYTHROMYCIN

	Effect of Gastric Acid	Peak Serum Level after 250 mgm PO mcg/ml	Effect of food on absorption	Decrease dose in renal failure	Excretion in bile
Erythromycin Base *	++++	0.3	++	no	+++
Erythromycin Stearate	++	0.4	++	no	+++
Erythromycin estolate	±	1.4	0	no	+++

\*coated tablets that pass through stomach are available  
considerable variation of absorption of individual erythro.  
(data from Kucers and Bennett)



Table 3  
ERYTHROMYCIN  
Clinical Uses

1. Upper Respiratory Infections. (except those caused by *Hemophilus influenzae*)
2. Pneumonia
  - pneumococcal
  - streptococcal
  - mycoplasmal
  - chlamydial
  - Legionnaires
3. Soft tissue and cutaneous infections.
4. presurgical bowel preparation (usually combined with an oral aminoglycoside)
5. acne (used either systemically or topically)

hours of use, suggesting hypersensitivity. The reaction reverses when the drug is discontinued. This effect has resulted in a recommendation that the esterified form be removed from commercial use. Side effects of erythromycin are summarized in Table 4.

## CLINDAMYCIN

### INTRODUCTION

Clindamycin is 7-chloro-lincomycin and has so dominated therapy that lincomycin use has decreased considerably, in reality being replaced by clindamycin. The parent drug is derived from *Streptomyces lincolnensis* and became available in 1963. Lincomycin has a unique structure, otherwise it somewhat resembles erythromycin in its effects. It is bound to the 50-S subunit of the ribosome, overlapping that of chloramphenicol and erythromycin. Little of its action is known other than it is another inhibitor of protein synthesis.

### PHARMACOLOGY

Clindamycin is well absorbed from the gas-

Table 4  
TOXICITY OF ERYTHROMYCIN

Gastrointestinal—Nausea, vomiting, diarrhea  
Common but not often severe

Hepatotoxicity—especially after erythromycin estolate—usually cholestatic—reversible. May also have severe abdominal pain.

trointestinal tract. A phosphate ester is used for parenteral administration. This form is inactive in vitro but is metabolized in the body to clindamycin. The major route of excretion is the liver and the dose must be modified in this instance also. It is not removed from the serum by hemo- or peritoneal dialysis. High blood levels are achieved by oral or parenteral forms. The drug does not penetrate into CSF so has little place in therapy of anaerobic brain abscess.

### CLINICAL USAGE

Clindamycin has essentially the same spectrum as penicillin G and erythromycin and is effective against a wide-range of gram-positive cocci with the important exception of *Streptococcus faecalis*. A few strains of clostridia are also resistant. Gram-negative organisms tend to be resistant except for anaerobic organisms. Clindamycin is one of the most potent antibiotics against anaerobes, especially *Bacteroides fragilis*, and is frequently used when anaerobic infection is present.

Clindamycin hydrochloride is available for oral use as capsules containing the equivalent of 75 or 150 mg of clindamycin base. The usual dose is 150 to 300 mg four times daily but higher doses may be given in serious infections. A parenteral dose of clindamycin phosphate—300-1200 mg four times daily—is most often used intravenously for more serious infections. A topical preparation, Cleocin-T (Upjohn), for acne has recently become available.

### SIDE EFFECTS

Hypersensitivity with rash may occur. Transient elevations of serum transaminase may be seen. The most spectacular side effect is the so-called pseudomembranous enterocolitis. Recent studies have shown that most of this syndrome results from enterotoxins produced

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by clindamycin-resistant *Clostridium difficile* in the gut. If the physician is alert to the syndrome, it can ordinarily be readily managed by discontinuation of the drug, and the administration of oral vancomycin. The physician should also avoid the use of antiperistaltic agents such as belladonna alkaloids or diphenoxylate. Virtually all other antibiotics have also been associated with pseudomembranous enterocolitis to some degree.

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A COMBINATION OF SCIENTIFIC STUDY AND RELAXATION.



# Closed Intramedullary Nailing of the Femur

JAY BRYNGELSON, MD  
WILLIAM A. GRANA, MD

*Closed intramedullary nailing of femur fractures is a technique of several advantages over traditional opening nailing in the management of femoral shaft fractures. However, this technique does require special operating equipment and experience with the procedure to achieve the best results.*

## INTRODUCTION

Kuntscher described closed intramedullary nailing of the femur in 1940 and during World War II the German surgeons used the technique with impressive results on a large scale. However, after the war open techniques superseded the closed method because technical difficulties limited its widespread use. Interest in closed nailing has been revived with the development of mobile image intensifiers with image retention features, improved fracture tables, and better, flexible cannulated reamers. Nevertheless, the technique is not widely utilized because of the lack of availability of equipment, lack of experience with the technique, less anesthetic time for open methods, and fewer technical problems with the open method. The purpose of this paper is to present our experience with

closed intramedullary nailing of the femur in Oklahoma City along with a discussion of the advantages and complications of this technique.

## INDICATIONS AND CONTRAINDICATIONS

Indications for the procedure are:<sup>8, 12</sup>

- (1) Fractures of the femoral shaft at least 20 cm distal to the tip of the greater trochanter and 12 cm proximal to the knee joint;
- (2) Transverse, short oblique, slightly comminuted or segmental fractures are acceptable;
- (3) The patient must be a suitable candidate for general anesthesia and to accept the required position on the fracture table.

Contraindications to the procedure are:

- (1) Severely comminuted fractures, long oblique fractures, and fractures with a longitudinal linear component which could separate during nailing;
- (2) Fractures in children with open epiphyseal growth plates;
- (3) Presence of fat-embolism syndrome;
- (4) Lack of proper equipment.

## CLINICAL MATERIAL

Twenty-four intramedullary nailings of the femur were performed in twenty-three patients during a sixteen-month period from October 1978 to January 1980. These procedures were

Table I  
MECHANISM OF INJURY

Automobile accident	13 patients
Motorcycle accident	6 patients
Auto-pedestrian accident	2 patients
Sports injury	2 patients

performed by eight different surgeons in four Oklahoma City hospitals. The age of these patients ranged from 14-to-49 years with an average age of 24 years. Twenty patients were male and three were female.

Fifteen fractures were on the right and nine on the left. One patient had bilateral fractures. Twenty-one of these fractures were closed and three were open. There were no neurologic or circulatory abnormalities associated with these injuries. The mechanisms of injury are shown in Table I. Vehicular trauma was the most common cause of injury. Significant associated injuries occurred in 18 patients as shown in Table II. Closed head injuries, tibial fractures, and fractures of the foot were the most common associated injuries. The majority of fractures were transverse and located in the mid-third of the femur as shown in Table III.

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Table II  
ASSOCIATED INJURIES

Injury	Number of Patients
Closed head injury	7
Tibial fractures	5
Foot fractures	4
Ankle fractures	3
Abdominal injuries	3
Pelvic fractures	2
Facial fractures	2
Forearm fracture	1
Acetabular fracture	1
Dislocation of hip	1
Brachial plexus injury	1
Knee ligament injury	1

#### INITIAL MANAGEMENT

In most cases patients were initially placed in skeletal traction through a Steinman pin placed in the proximal tibia. Sufficient weight was applied in order to obtain one centimeter of distraction at the fracture site. Patients with open fractures underwent initial irrigation and debridement followed by delayed primary closure. Closed nailing was then performed approximately three weeks post-injury. The average time from injury to surgery was 13 days with a range of 2-to-22 days. Prophylactic broad spectrum antibiotic coverage was used in 16 of the patients and in patients with open injury. Traction radiographs were measured to determine the approximate length and diameter of nail to be used.

#### SURGICAL TECHNIQUE

The surgical technique as described by Kuntscher was used with minor variations.<sup>1, 3, 4, 6, 8</sup> Following the institution of sufficient general anesthesia the patient is placed in the lateral Kuntscher position on the fracture table while maintaining skeletal traction. The hip is flexed and adducted in order to provide better access to the greater trochanter. The distal extremity is placed in apparent internal rotation to compensate for the obliquity of the pelvis on the table. (Fig 1) This prevents ex-

Table III  
TYPE AND SITE OF FRACTURE

TYPE		SITE	
Transverse	20	Upper third	4
Oblique	3	Middle third	19
Spiral	1	Lower third	1



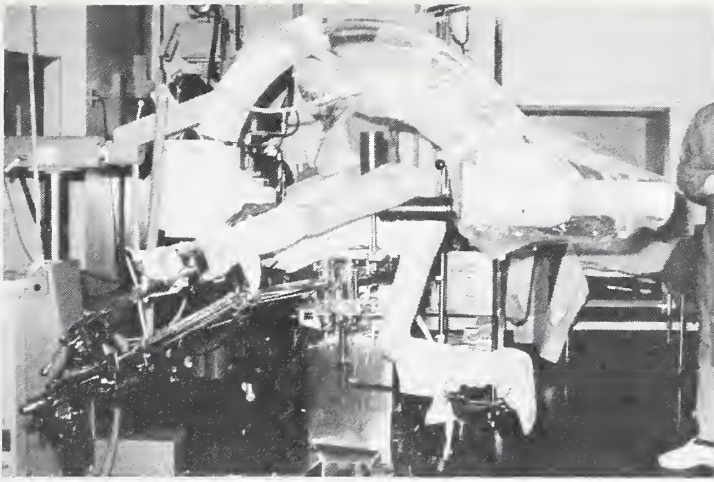


Fig 1

nail is followed with the image intensifier especially across the fracture site. The nail guide is removed prior to final positioning of the nail. The traction is released to allow final impaction of the fracture and the wound is closed.

#### POSTOPERATIVE CARE

Following surgery, unless contraindicated by associated injuries, the patient is allowed up on crutches with partial weight bearing in three to five days. The patient is discharged from the hospital when independently ambulatory with crutches. Full weight bearing is allowed at six weeks following surgery.

#### RESULTS

The average time required to perform a closed femoral nailing was 2½ hours. An average time of 48 minutes was required to position the patient and perform trial reductions. The average operative time was 1-hour, 43 minutes. The shortest case was performed in 58 minutes and the longest in 4-hours, 5 minutes. Image intensifier time was recorded in one-third of patients and averaged 3½ minutes. The average preoperative distraction of the fracture site was 0.8 cm. Nail lengths ranged from 36-to-44 cm and the most frequently used diameter was 15 mm.

The average hospital stay in this series was 23 days. Patients were able to ambulate with a walking aid on an average by 4½ days following surgery.

Callus formation was seen on the average by 10 days postoperatively with bridging callus by

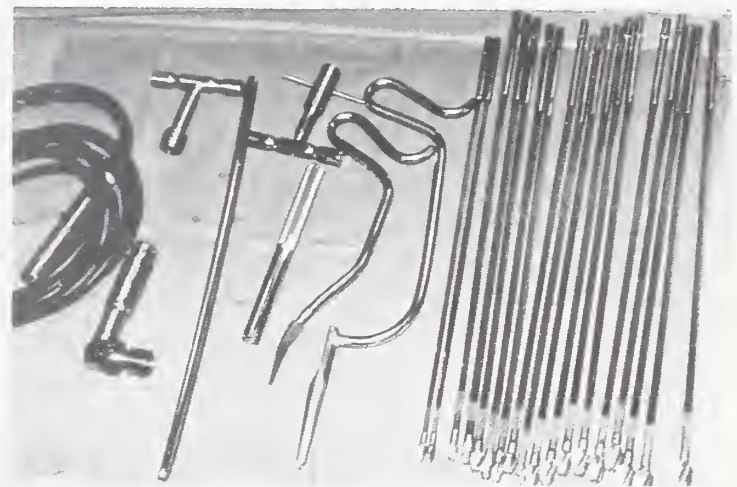


Fig 2

The equipment for closed intramedullary nailing included (from left to right) air power for the reamers, a t-handle for manual use of the reamers, a pre-bent blunt ended nail, awls and flexible graduated reamers.

ternal rotation deformity. The unscrubbed surgeon then practices the manipulation of the extremity required to reduce the fracture with image intensifier control. Adequate reduction at this point is imperative. The skin over the greater trochanter is prepared and draped in a sterile manner. A short incision is made proximal to the tip of the greater trochanter. The muscle layer is separated bluntly to expose the medial aspect of the greater trochanter. A triangular awl is then inserted on the medial side of the trochanter distally and directed toward the middle of the knee joint. The awl is passed into the medullary canal to create an entry for the guide wire. A guide wire is inserted into the opening and advanced into the proximal fragment. The position of the guide wire is verified by image intensifier views in two planes. Once good position of the guide wire is established an enlarging awl is passed over the guide wire. The guide wire is then replaced by a ball-tipped reamer guide which is passed across the fracture site and into the distal fragment while the unscrubbed surgeon manipulates the fracture into a reduced position. After central placement of the reamer guide has been verified by image intensifier examination, the medullary canal is reamed over the reamer guide beginning with an eight millimeter reamer and progressing in ½ mm. increments until firm resistance is met on both sides of the fracture site. (Fig 2) The diameter of nail selected is the same as that of the last reamer used. A second check of the length of the nail is made by measurement of the exposed reamer guide. After reaming is completed a larger nail guide is placed across the fracture site. A pre-bent Kuntscher nail with a tapered tip is selected, placed over the nail guide, and driven into position with a mallet. The passage of the



one month postoperatively; partial obliteration of the fracture site by two months; and obliteration of the fracture site by four months postoperatively.

Two-thirds of patients had full range of motion of the involved knee by two months postoperatively.

Limitation of hip motion was not a problem; however, four patients complained of tenderness over the tip of the rod. Heterotropic bone formation over the tip of the rod occurred in 11 patients; however, this was not associated with hip pain or limited range of motion.

Postoperative swelling of the thigh and knee occurred in three patients but resolved with elevation and restriction of activity. None of the nails have been removed. The average followup was five months.

#### COMPLICATIONS

In three patients an incision at the fracture site was required in order to complete the procedure. Two of these patients had fractures which could not be reduced closed and the third had a pathologic fracture secondary to fibrous dysplasia which prevented passing the guide wire across the fracture site.

Shortening occurred in three patients. One patient had  $\frac{1}{2}$  cm of shortening, another patient had  $1\frac{1}{2}$  cm of shortening and the patient with bilateral fractures had 3 cm of shortening bilaterally.

Rotational deformity with functional or clinical limitation did not occur.

Comminution during nailing occurred in two patients but did not effect stability or healing. In two patients there was some separation of preoperative linear comminution. In one patient this occurred during nailing and in the other patient, following surgery.

There was no incidence of death, infection, nonunion, malunion, fat or pulmonary embolism, neurologic deficit, circulatory abnormality, or bent or broken nails in this series.

#### DISCUSSION

Intramedullary nailing of femoral shaft fractures has several distinct advantages over non-operative treatment or open nailing. The advantages of closed nailing are as follows:

(1) Short hospital stay. The short period of

hospitalization in this series has also been reported by others.<sup>9, 10</sup> In a comparison study Rokkanen<sup>9</sup> et al reported the shortest hospital stay in patients treated by closed nailing (31 days) when compared with patients treated by open nailing (35 days) or conservatively (71 days).

- (2) Rapid recovery of knee function. Patients treated by closed nailing have been shown to have less difficulty obtaining full knee motion.<sup>9, 10</sup> They also have smaller decreases in quadriceps strength and endurance than those patients treated by open nailing or non-operatively.<sup>16</sup>
- (3) Low risk of infection. There were no infections in this series. Reported rates of deep infection for closed nailing range from 0 to 3% while the rates for open nailing range from 1 to 11%.<sup>1, 7, 10, 11</sup>
- (4) The closed technique precludes an unsightly scar on the thigh. The scar which is produced is small and easily hidden.
- (5) Rapid rate of union and low incidence of nonunion. Clawson<sup>3</sup> and others reported callus formation as early as 16-days and mature bridging callus by six weeks following closed nailing. Rascher reported a similar experience. In our series callus was seen by ten days postoperatively and bridging callus by four weeks postoperatively. In contrast Sage<sup>11</sup> reported the appearance of callus at 7.9 weeks following open nailing. The incidence of nonunion has been found to be lower with the closed technique. The rate of nonunion has been reported to be from 0-to-2% with the closed method while with the open technique the rates have ranged from 1-to-7%.<sup>2, 11, 14, 15</sup>

There are several possible explanations for this rapid rate of union and low incidence of nonunion including:

- (1) There is less disruption of the periosteal blood supply when using the closed technique.<sup>9</sup>
- (2) Reaming of the medullary canal provides autogenous bone graft at the fracture site.
- (3) The closed technique prevents drainage of the hematoma which is important to callus formation.<sup>1</sup>
- (4) Devascularization of bone fragments is prevented.
- (5) There is less damage to the soft tissues surrounding the fracture.



Possible disadvantages of closed nailing are as follows:

- (1) Longer surgery time. In our series the average time to perform a closed femoral nailing was 2½ hours. Clawson<sup>3</sup> and others also reported an average time of 2½ hours. In Schneider's<sup>13</sup> series of over 260 open nailings the average time of surgery was 45-minutes-to-one hour.
- (2) Potential radiation hazard. Schneider<sup>12</sup> states that the procedure usually can be performed with less than five minutes of fluoroscopy time. Rascher<sup>8</sup> and others report that their usual radiation exposure is approximately that of an average gastrointestinal series. Fluoroscopy time may be minimized by proper technique and by the use of image intensifiers with image retention features. The room should be darkened, the surgeon should control the exposure switch, and exposures should be made in short bursts and only when necessary.

#### CONCLUSION

The results of this series and others demonstrate that closed Kuntscher nailing has several advantages over other techniques for the treatment of femoral shaft fractures. These in-

clude shortened hospital stay, rapid recovery of knee function, low risk of infection, cosmetically acceptable scar, rapid rate of union and low incidence of nonunion. With proper equipment and technique the complications from this method are minor. The closed technique deserves serious consideration when internal fixation is indicated for fractures of the femoral shaft.

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## News From The Oklahoma State Department of Health

A study recently released by the US Public Health Service indicates that the prevalence of diabetes mellitus in the US population has increased ten-fold during the past 45 years. The National Diabetes Data Group, working in collaboration with the National Center for Health Statistics, has reported an increase from 0.5 million diabetics in 1936 to 5.2 million today. Thus, at present, one in every forty Americans has been told by a physician that he or she has diabetes.

Even this impressive figure may be an underestimate of the scope and impact of diabetes, since a study in the early 1960's showed that 15% of diabetics forgot to tell the household interviewer of their condition. In addition, the estimated prevalence of 5.2 million did not attempt to count the cases of undiagnosed diabetes. Community screening surveys during the 1950's and 1960's found that for every diagnosed diabetic, there was an undiagnosed diabetic. If this ratio still prevails, the true prevalence of diabetes in the US may be more than 10 million.

The prevalence of diagnosed diabetes is influenced by two factors: the rate of occurrence

of new cases (incidence) and the mortality rate among existing cases of diabetes. The number of new cases identified each year has increased from 5 per 10,000 population in 1936 to 29.7 per 10,000 in 1973. Since then, the incidence nationally has fallen slightly to 26.7 per 10,000, and only in the age group 65-years of age and older has the incidence continued to rise.

Despite the slight decrease in new cases since 1973, the prevalence of diabetes continues to grow, due chiefly to the decline in diabetes mortality since 1970. While the death rate for diabetes as the underlying cause of death rose slightly over the period 1960-1969, since 1970 the rate has declined about 21%. While the cause for this decline is still being studied, it appears to be due to a decrease in cardiovascular deaths among diabetics. About 60 to 70% of diabetics died of cardiovascular diseases. A special study in Iowa found that over the period 1972-77, diabetic deaths associated with ischemic heart disease decreased 26%, and deaths due to cerebrovascular disease declined 25%. Cardiovascular death rates are also markedly declining in the general US population, and it appears that diabetics are benefiting from this general pattern.

While diabetes prevalence for states can only be estimated since diabetes is not a reportable disease, these national trends strongly suggest that diabetes will continue to grow as a medical and public health problem in Oklahoma. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR DECEMBER, 1980

DISEASE	December 1980	December 1979	November 1980	Total To Date	
				1980	1979
Amebiasis	—	5	1	42	23
Aseptic Meningitis	11	13	21	86	123
Brucellosis	—	1	2	9	7
Encephalitis, Infectious	1	1	3	17	23
Gonorrhea (Use Form ODH-228)	1075	1028	1073	13844	13754
Hepatitis A	41	22	37	387	265
Hepatitis B	31	19	14	229	162
Hepatitis Unspecified	14	18	5	234	202
Malaria	—	1	—	12	9
Measles (Rubeola)	—	—	—	775	22
Meningococcal Infections	37	3	20	156	40
Pertussis	1	8	4	29	36
Rabies (Animal)	12	23	11	246	288
Rocky Mountain Spotted Fever	4	—	10	76	60
Rubella	2	—	—	8	24
Salmonellosis	57	33	38	397	393
Shigellosis	50	40	15	272	293
Syphilis (Use Form ODH 228)	12	6	9	120	94
Tetanus	—	—	—	1	2
Tuberculosis	32	32	38	338	354
Tularemia	1	—	2	24	14
Typhoid Fever	—	—	—	6	—



## Annual Meeting to Feature Several Changes

A special attraction for physicians and their families is coming soon. The 1981 OSMA Annual Meeting will be conducted May 7-10 at the Shangri-La Lodge on Grand Lake in Afton OK. The meeting promises some exciting changes from previous annual meetings.

One of the most apparent changes for the next annual meeting is its site . . . a resort instead of a hotel in Oklahoma City or Tulsa as in the past. This change was made to accommodate OSMA's desire to make the annual meeting a more family-oriented occasion.

OSMA has adjusted the schedules of its scientific program and its business sessions to provide more free time for physicians to spend with their families without compromising the quality of the scientific program or reducing the efficiency of annual business meetings.

### SCIENTIFIC PROGRAM

In keeping abreast with the latest medical developments, continuing medical education (CME) becomes a necessary part of a doctor's medical practice. The scientific program of the next OSMA annual meeting will again feature a large selection of CME seminars. The scientific program will focus on clinical crisis situations and eleven thirty-minute presentations will be conducted dealing with a variety of crisis situations including obstetrical, allergic, psychiatric and other emergencies. The scientific program will offer approximately 20 hours of CME which are approved for Category I by the American Medical Association and by the American Academy of Family Practice.

Speakers for the sessions will include three out-of-state physicians: Hal Nelson, MD, Denver, CO; James L. Mathis, MD, Greenville, NC; and Joseph C. Scott, Jr., MD, Omaha, NE. Oklahoma doctors will address other scientific sessions. These physicians are: James H. Wells, MD, Oklahoma City; Petre N. Grozea, MD, Oklahoma City; David A. Newmann, MD, Oklahoma City; Thomas A. Dodson, MD, Tulsa; John H. Stuemky, MD, Oklahoma City; Jerry L. Bressie, MD, Oklahoma City and James M. Guernsey, MD, Tulsa.

Doctors who wish to meet with the scientific speakers individually can attend faculty breakfasts which will be held before the scientific programs on Friday and Saturday, May 8 and 9. Tickets for each breakfast must be pur-

Aerial of Shangri-La Resort on Grand Lake O' the Cherokees in Northeast Oklahoma.



chased in advance. See ticket costs and other relevant information on page 86.

In addition to the scientific program, special seminars will be conducted during the annual meeting. These seminars will feature a malpractice prevention session, an advanced cardiac life support (ACLS) course and a basic CPR course. A special CPR course will be conducted for physicians who plan to take the ACLS course, but are not certified in CPR.

Members of the Oklahoma Chapter, American College of Emergency Physicians will also hold a special session in conjunction with OSMA's annual meeting. Members of this specialty society will meet on Saturday, May 9 at 11:30 AM.



## OSMA BUSINESS SESSION

William Y. Rial, MD, speaker of the AMA House of Delegates will address the opening session of the OSMA House of Delegates on Thursday, May 7 at 10:00 A.M.

Rial practices general medicine in Swarthmore, PA. In addition, he is a clinical assistant professor at Hahnemann Medical College in Philadelphia. Dr Rial has also held previous AMA positions including vice-speaker of the House of Delegates, member of the House of Delegates, vice-chairman of the Section on General Practice and commissioner of the Joint Commission on Accreditation.

Doctor Rial is unique in that in addition to his medical degree he holds a Bachelor of Science degree in engineering. He studied engineering before World War II. While serving in the South Pacific he became interested in medicine. After WW II, he completed his degree in engineering and then entered medical school.

In addition to the opening and closing sessions of the OSMA House of Delegates, OSMA's Executive Committee, Board of Trustees and Reference Committees will conduct business meetings during the 1981 OSMA Annual Meeting. See page 87 for a tentative program of these events.

## OSMA AUXILIARY ACTIVITIES

While OSMA physicians are participating in either the scientific program or annual business meetings, the OSMA auxiliary will also conduct its annual meeting.

Mrs J. Edward Hill, Hollandale, MS, will address auxiliary members during a luncheon to be held at noon on Friday, May 8. She is a national director for the American Medical Association Auxiliary, Inc, and is now serving as chairman of the Special Resident Physician/Medical Student Spouse Committee. Mrs Hill has also held a variety of positions in her county and state associations. In addition, she has served in leadership positions for numerous civic clubs.



William J. Rial, MD

In addition to the annual business functions, a variety of other activities are being planned for OSMA auxiliary members. They will include a gourmet cooking demonstration, flower arranging sessions and demonstrations conducted by an artist and a woodcarver. A puppet show will be available for children if enough of them are present. All of these activities will be available at no extra cost.

OSMA's auxiliary encourages its members to pre-register for the annual meeting because an early count is needed in order to complete the plans for the activities listed above.

See page 88 for a schedule of the OSMA auxiliary's annual business functions. A schedule for the other activities will be made available at a later date.

## PRESIDENT'S PRAYER BREAKFAST

Mike Blaylock, former chaplain of the Kansas City Royal Baseball team will be the featured speaker for OSMA's Second Annual President's Prayer Breakfast to be held at 9:30 AM on Sunday, May 10.

The OSMA auxiliary has assumed the responsibility of organizing this annual meeting event which originated last year.

Tickets for the prayer breakfast must be purchased in advance. See page 86 for ticket costs and other relevant information.

## SHANGRI-LA'S RECREATIONAL FACILITIES

Following the scientific seminars and business functions, doctors and their families are invited to enjoy the many recreational opportunities that are available at Shangri-La.

One of the resort's most attractive spots is its Golden Tee Golf Course. The course is well-known among golfers across the state and even nationwide. Doctors who plan to play golf during the annual meeting might also be interested in knowing that located near the golf course are the following facilities: club storage, cart rental, a putting green, driving range, fully-equipped pro shop, showers and lockers.

Shangri-La also features the Golden Leaf Recreational Center which includes indoor tennis courts. These courts are individually screened and well-lighted. Additional tennis courts are available at the Country Estates, another area of Shangri-La.

Golf and tennis equipment is available for rent or purchase.



For several years, OSMA annual meetings have included golf tournaments for men and tennis tournaments for men and women. This year will be no exception. The golf tournament will be held on Friday and Saturday afternoons, May 8-9 and the tennis tournaments are scheduled for Saturday afternoon, May 9. Trophies will be awarded to the winners of these events.

To register for the tournaments, mail a \$10 entry fee per person per event to OSMA, 601 NW Expressway, Oklahoma City, Oklahoma 73118.

Participants in the golf tournament will be responsible for their own cart rental and green fees.

The Golden Leaf Recreational Center features other activities for its sports-minded guests. Facilities include bowling alleys, a game room and bicycle rental. Showers, locker rooms, saunas and whirlpool baths are also available.

Fully-equipped health spas which are located near Shangri-La's Tahitian Terrace will also be available to doctors and their families during the annual meeting. Use of the spas is by appointment only.

Grand Lake surrounds the resort and makes possible a variety of marina and water sports. The resort includes a boating rental service for water skiing, touring and fishing. Indoor swimming is also available, and the availability of an outside pool is dependent on weather conditions. Water volleyball and regular volleyball can be pre-arranged for those interested by contacting activities director at 918 257-4204, extension 7020.

See page 86 for a complete list of Shangri-La's recreational opportunities and the costs for each.

## **SOCIAL FUNCTIONS**

As always, a number of outstanding social events are scheduled during the annual meeting. OSMA will hold a party with a western theme in Shangri-La's Hogan area on Thursday, May 7, at 7:00 PM. The event will offer an outdoor barbeque and live entertainment featuring a country and western band. OSMA is encouraging all doctors and their families to observe the theme of this party by dressing in western outfits.

On Friday evening, May 8, the mood will switch from country and western to elegant dining in Shangri-La's Golden Eagle room. The

banquet is sponsored by the University of Oklahoma Medical School Alumni Association.

Doctors and their families are also invited to attend the 1981 Presidential Inaugural Ball on Saturday, May 9 at 7:00 PM in the Golden Eagle room. The event will involve dining and special entertainment featuring the Forrest Wasson 12-piece orchestra. Following the banquet and ceremonial activities, the orchestra will play for those who wish to dance. Tickets for all social functions must be purchased in advance. See page 86 for ticket information including costs.

## **SPECIAL ALUMNI ACTIVITIES**

Physicians who were graduated from the University of Oklahoma School of Medicine in 1946 will hold a class reunion during the annual meeting. Members of this graduating class should have received additional information in the mail about the specific location and time of these social functions. If not, contact Orange Welborn, MD, chairman for the class reunion. (Address below.)

In addition, Dr Welborn has requested that each of the 60 physicians who were graduated with the class of 1946 send him updated information about themselves including current mailing address, type of practice and other personal information. Such information will be included in a newsletter to be distributed to each of the 1946 classmates at the reunion.

For more information on the class reunion and to send the personal updated information write Dr Orange Welborn, 1401 Arlington, Ada, OK 74820.

## **DINING FACILITIES**

Shangri-La includes an assortment of fine eating facilities. In addition to the Golden Eagle Room which is primarily used for evening dining and dancing, Shangri-La has a gourmet dining room called the Garden Room which features a seven-course dinner. Reservations must be made in advance.

For more private dinners or luncheons for groups of four-to-six persons, the Showcase Wine Cellar is available. Another facility for small groups during lunch or for refreshments is The Cellar near Shangri-La's Tahitian Terrace. For evening dining out of doors, Shangri-La offers the Tahitian Courtyard. During the day the courtyard includes a Sidewalk Cafe for light snacks and lunches.

Shangri-La's Angus Dining Room opens at 7:00 AM each morning. Its menu includes selections for breakfast, lunch and dinner. A buffet continental breakfast will be offered each morning at 8:00 AM especially for doctors and their families. The breakfast will be served at the Tahitian Terrace which features a polynesian atmosphere. The snack areas at Shangri-La are the Centre Court which is located in the Golden Leaf Recreational Center and Nine Plus at the Golden Tee Golf Course between the 9th hole of the red and 1st tee of the blue courses. Shangri-La's club facilities are the Vista Lounge near the resort's Lakeside Terrace, the 19th Hole just above the pro shop at the Golden Tee Golf Course and the Horizons Lounge which is located in the Golden Leaf Recreational Center.

#### **SHANGRI-LA'S OTHER CONVENIENT SERVICES**

In addition to Shangri-La's convenient recreational and entertainment facilities, a number of other convenient services are also available.

Shangri-La provides continuous transportation via a shuttle bus for its guests. The bus travels back and forth (approximately every 15 minutes) from the Golden Oaks to the main lodge area where OSMA's business and scientific activities will be conducted. Doctors and their families who are lodging in condominiums or the Country Estates area can also have shuttle bus service upon request.

Physicians who intend to fly private planes to the resort will be interested in Shangri-La's 24-hour airpark service at the Golden Falcon Airpark. Upon approaching the resort's 4,000-foot paved and lighted runway, a call on Unicom 122.7 will bring a courtesy van to meet doctors and their families. The van will transport guests to Shangri-La's main lodge three miles away. Airpark service fees are presented on page 86.

This year physicians are encouraged to bring their entire family along for several days of relaxation. Small children will present no problem as Shangri-La offers a babysitting service.

If enough children are present Shangri-La's recreational director will schedule babysitting services during all OSMA's social functions. Otherwise, families with small children should

arrange babysitting services by contacting the resort's recreational director at least 24 hours in advance.

The lodge vault is available to anyone who wishes to store valuables during the annual meeting.

Shangri-La also has several shops offering sportswear, accessories, personal items, and other necessities. In addition, the resort has a beauty salon and barber shop. See page 86 for cost information.

#### **ACCOMMODATIONS**

Physicians have a choice of accommodations in four different areas of Shangri-La. The rooms in the main lodge and the Golden Oaks will be nearest most OSMA functions. But additional rooms are also available in Shangri-La's Country Estates and the resort's condominiums. See page 86 for room prices.

#### **RESERVATIONS AND PRE-REGISTRATION**

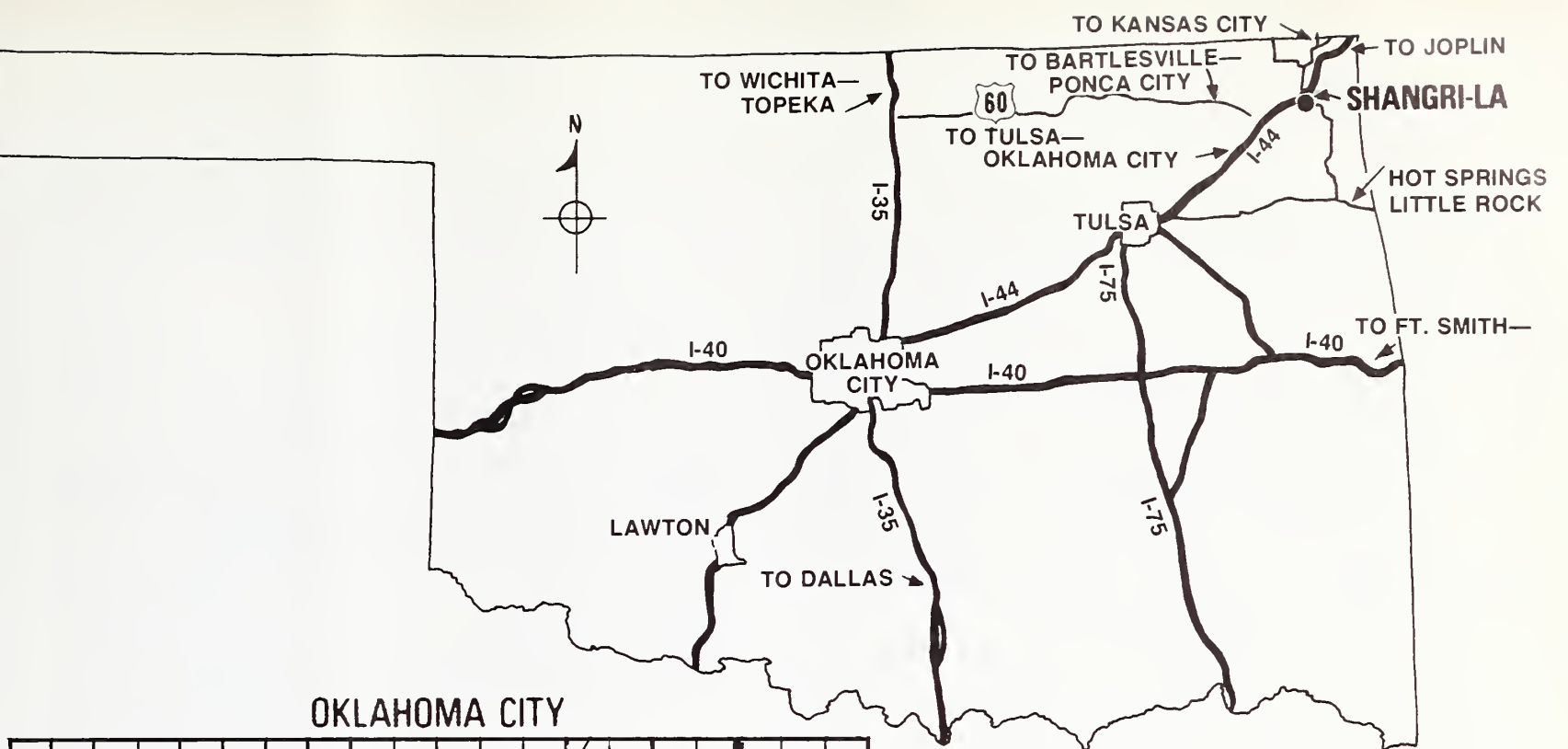
To ensure lodging accommodations doctors should make reservations before **April 7**. OSMA has reserved all of Shangri-La's lodging facilities (more than 360 rooms), but Shangri-La's policy requires that OSMA release all rooms which have not been individually reserved by April 7.

To make reservations contact Shangri-La's Reservations Office, Shangri-La, Route 3, Afton, Oklahoma, 74331 or by calling (in Oklahoma) 1-800-722-4903 (out of state) 1-800-331-4060. Space will be confirmed upon receipt of a \$50 deposit for each room reserved.

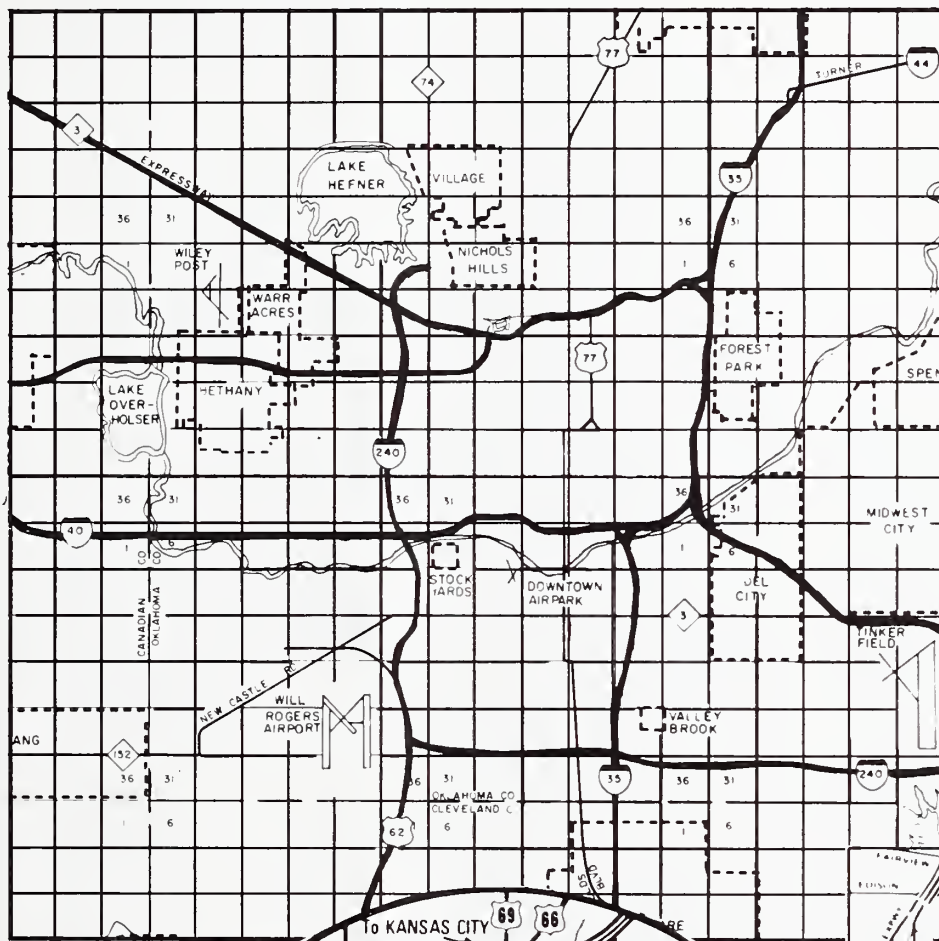
#### **DIRECTIONS**

Shangri-La is located on the tip of Monkey Island along the Grand Lake O' the Cherokees. From Oklahoma City go east on interstate highway 44 also known as the Turner Turnpike. Follow the highway through Tulsa. In Tulsa, interstate 44 becomes the Will Rogers Turnpike. From Tulsa follow the Will Rogers Turnpike exiting at US 59. Follow US 59 south, then east for approximately six miles. Turn south on State Highway 125 which is midway between the Afton/Grand Lake I-44 exit and Grove, Oklahoma. Go 11 miles to the end of Highway 125 where the Shangri-La resort is located. (See maps printed on the following page.)



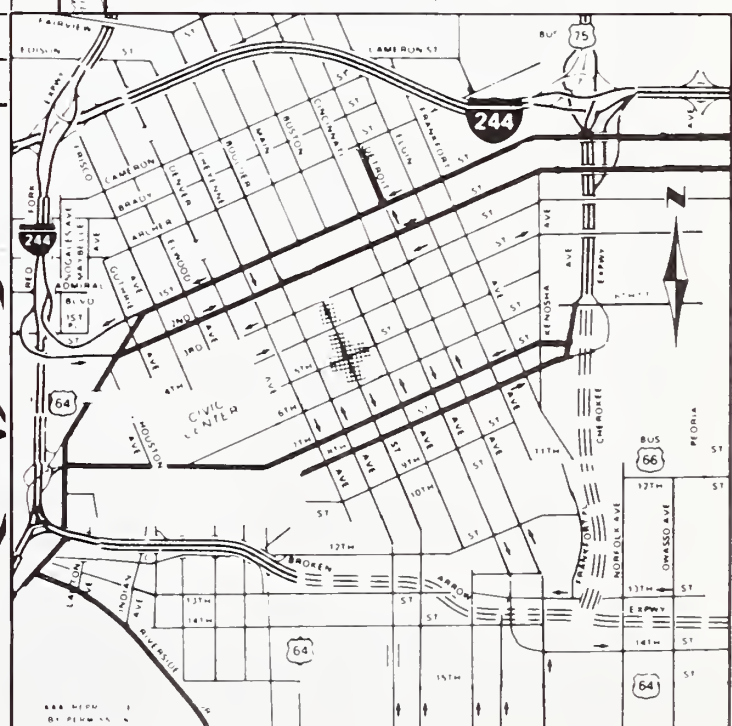


### OKLAHOMA CITY

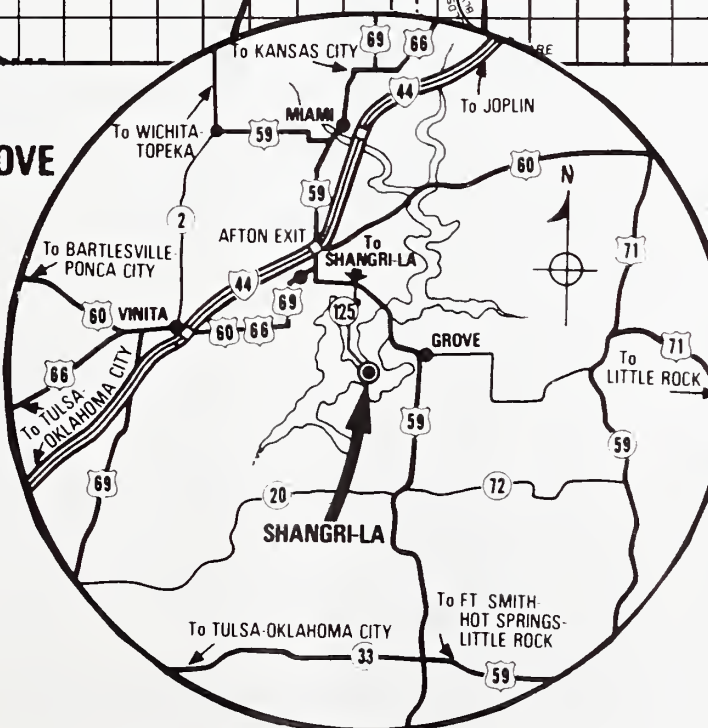


Expressways I-35, I-40 and I-240 through Oklahoma City are open, as are I-44 and I-244 through Tulsa.

### TULSA



### GROVE



## SHANGRI-LA AIRPARK SERVICES

Parking fee for: (applicable if parked  
3 hours or more)

Single engine aircraft .....\$4.00 per night

Multi-engine aircraft .....\$6.00 per night

Landing fee for:

Single engine aircraft .....\$2.00

Multi-engine aircraft .....\$3.00

Not applicable in the following cases:

a) when dropping off or picking up  
Shangri-La guests

b) when making a quick turn around

c) when purchasing 25 gallons of fuel or  
more

d) when a \$30 expenditure is made at  
Shangri-La

Single engine aircraft must park in the grass  
parking area while heavier multi-engine air-  
craft are permitted to park on hard-surfaced  
parking areas.

## SHANGRI-LA SERVICE FEE SCHEDULE

### • Barber & Beauty Shops:

Shampoo and set .....\$ 8.00

Permanent waves .....From \$40.00

Manicure .....\$ 6.00

Pedicure .....\$15.00

Haircut (ladies) .....From \$ 8.00

Haircut (men) .....\$ 5.00

### • Bicycles:

Per hour .....\$ 2.50

### • Boating & Marina:

Water Skiing (per hour) .....\$40.00  
(includes pilot and fuel)

Fishing Boats (per day) .....\$27.50  
(plus fuel and oil; half-day—\$15.00)

## OSMA ANNUAL MEETING COSTS

Tickets:

Western Hogan Party (Thursday) .....\$20

OU Alumni Association Banquet  
(Friday) .....\$15.25

1981 OSMA President's Banquet &  
Inaugural Ball (Saturday) .....\$25

Faculty Breakfasts (Friday &  
Saturday) .....\$ 6 each

President's Prayer Breakfast .....\$ 7

(All prices are cost approximations at the time  
of publication.)

**OSMA has mailed forms to physicians  
requesting ticket information from doctors  
about the number of tickets they need for  
each function. OSMA urges doctors to**

**complete the forms and return them along  
with checks for the cost of tickets (ticket  
costs are included on the ticket cards).**

Pre-registration fees:

Golf & Tennis tournaments

(Friday & Saturday) .....\$10 entry fee

## SHANGRI-LA COSTS

Accommodations:

Main Lodge .....\$ 58 per night  
(one bedroom—one or two persons)

Golden Oaks .....\$ 60.50 per night  
(one bedroom—one or two persons)

Country Estates .....\$ 80 per night  
(one bedroom—one or two persons)

Country Estates .....\$80+ per night  
(one bedroom and one sleeper sofa — four  
persons) an additional \$5 charge is required  
for third and fourth persons.

Condominiums .....\$185 per night  
(two bedrooms—four persons)

Condominiums .....\$205 per night  
(Deluxe two-bedroom—four persons)

**OSMA reminds physicians to preregister  
and to confirm their reservations before  
April 7. See page 84.**

## MISCELLANEOUS FEES

### • Fishing Guide:

2 people ½ day .....\$ 70.00 (plus fuel)

3 people ½ day .....\$ 90.00 (plus fuel)

2 people 1 day .....\$110.00 (plus fuel)

3 people 1 day .....\$150.00 (plus fuel)

• Pontoon Boats (per hour) .....\$ 40.00  
(includes pilot, fuel & oil, maximum  
capacity—15 people)

• Cruiser (per hour) .....\$ 60.00  
(plus \$15 per hour-fuel, maximum  
capacity—10 people)

• Houseboat (2 hour minimum) .....\$275.00  
(plus \$15 per hour fuel charge and \$100 per  
hour for each additional hour, maximum  
capacity—40 people)

• Scenic Cruises to Har Ber Village ..\$ 5.00  
(per person)

• Ramp Fee .....\$ 3.00

### • Sailboat Cruises:

Group per day .....\$300.00

Group 2 days .....\$575.00

2-hr. cruises per person .....\$ 25.00

Lessons: per person, per hour .....\$ 15.00

Small sailboats, per hour .....\$ 15.00

### • Bowling:

Per line (per person) .....\$ 1.50

### • Car Rental:

Budget Rent-A-Car (contact front desk)



- Car Wash:
    - Exterior and Interior .....\$ 6.00
    - Exterior only .....\$ 3.00
  - Cribs:
    - Per day .....\$ 3.00
  - Golf:
    - Green fees (18 holes or more per day)
    - Weekdays .....\$ 12.00
    - Saturdays, Sundays, Holidays .....\$ 15.00
    - Cart rental (two people-18 holes) \$ 12.00
    - Club storage (per night) .....\$ 1.00
  - Health Spa:
    - Per person (per day) .....\$ 4.00
    - Body massage .....\$ 12.00
  - Limousine Service:
    - Contact front desk
  - Rollaways:
    - Per day .....\$ 5.00
  - Tennis:
    - Court time (per hour per court)
    - Outdoor courts .....\$ 7.00
    - Indoor courts per person, per hour . \$ 4.00
    - Minimum per hour per court .....\$ 15.00
- Shangri-La will honor American Express, Diner's Club, Master Charge and VISA (BankAmericard) credit cards. Shangri-La's dining areas will add a 15% service charge to all food and beverage bills. After 8:00 PM an entertainment charge is also added in dining areas where live entertainment is offered.

### TENTATIVE PROGRAM

#### Wednesday, May 6

- 2:00 PM
  - OSMA Executive Committee
- 4:00 PM
  - OSMA Board of Trustees

#### Thursday, May 7

- 10:00 AM
  - Opening Session OSMA House of Delegates
- 2:00 PM
  - OSMA Reference Committees
- 7:00 PM
  - Western Hogan Party

#### Friday, May 8

- 7:30 AM
  - Breakfast with the faculty
- 8:30 AM
  - Scientific Program begins—"The Clinical Crisis"
- 8:30 AM
  - Clinical Crisis and Cancer Patients—Petre N. Grozea, MD, Oklahoma City, OK
- 9:25 AM
  - The Suicidal Patient—James L. Mathis,

- MD, Greenville, NC
- 10:00 AM
  - Upper G.I. Bleeding—David A. Neumann, MD, Oklahoma City, OK
- 10:35 AM
  - Life Threatening Cardiac Arrhythmias, Jerry L. Bressie, MD, Oklahoma City, OK
- 11:30 AM
  - Upper Airway Obstruction In Children—Thomas A. Dodson, MD, Tulsa, OK
- 12:05 PM
  - Advancements In Emergency Room Technology—Robert J. Wilder, MD, Oklahoma City, OK
- 12:40 PM
  - Multiple Trauma Patients—James M. Guernsey, MD, Tulsa, OK
- 1:30 PM
  - Advanced Cardiac Life Support Course
- 1:30 PM
  - Malpractice Prevention Seminar
- Afternoon
  - OSMA Golf Tournament
- 7:00 PM
  - OU Alumni Association Banquet

#### Saturday, May 9

- 7:30 AM
  - Breakfast with the faculty
- 8:30 AM
  - Scientific Program begins—"The Clinical Crisis"
- 8:30 AM
  - Management of Allergic Emergencies—Jim Wells, MD, Oklahoma City, OK
- 9:25 AM
  - Reversing Drug Reactions—Hal Nelson, MD, Fitzsimmons Army Medical Center, Aurora, CO
- 10:20 AM
  - Poisoning In Children—John Stuemky, MD, Oklahoma City, OK

#### Saturday, May 9

- 10:55 AM
  - Obstetrical Emergencies—Joseph C. Scott, Jr., MD, Omaha, NE
- 11:45 AM
  - Closing Session OSMA House of Delegates
- 1:00 PM
  - Advanced Cardiac Life Support Course
- Afternoon
  - OSMA Tennis Tournament
- 7:00 PM
  - OSMA Presidential Inaugural Banquet and Ball

news

**Sunday, May 10**

9:30 AM

President's Prayer Breakfast

1:30 PM

Advanced Cardiac Life Support Course

**OSMA AUXILIARY 1981  
ANNUAL MEETING SCHEDULE**

**Thursday, May 7**

8:00 AM - 4:00 PM

Auxiliary Hospitality

9:00 AM - 5:00 PM

Registration

9:30 AM

Coffee & rolls for 1980-1981 Board Members

10:00 AM

Pre-Convention Board Meeting

12:00 noon

Luncheon for Joint Board Members (informal)

2:00 PM

Nurses Loan Fund

7:00 PM

Hospitality

7:00 PM

Western Hogan Party

**Friday, May 8**

8:00 AM - 4:00 PM

Auxiliary Hospitality

8:30 AM - 9:00 AM

Credentials Check

9:00 AM - 12:00 noon

Auxiliary House of Delegates and Installation of Officers

9:00 AM - 5:00 PM

Registration

9:30 AM

State Convention Business Meeting of All Delegates. (other auxiliary members are welcome)

12:00 noon

Luncheon for Auxiliary Members and Guests—Guest Speaker, Mrs. J. Edward Hill, National Director/RP/MS Spouse Committee Chairman, Hollandale, MS

5:00 PM

Wine Party Honoring Members-At-Large (Mrs. John T. Forsythe in condominium #534)

7:00 PM

University of Oklahoma Alumni Association — Reception, Dinner and Dancing

**Saturday, May 9**

8:00 - 12:00 noon

Hospitality

9:00 AM

Post-Convention Board Meeting (auxiliary)

9:30 AM

Post-Convention Board Meeting for 1981-1982 Board Members

7:00 PM

Hospitality

8:00 PM

OSMA Presidential Inaugural Banquet and Ball

**Sunday, May 10**

9:30 AM

President's Prayer Breakfast (featuring Mike Blaylock, former chaplain of the Kansas City Royal baseball team)

A variety of non-business activities will also be available for auxiliary members during the meeting including a gourmet cooking demonstration, flower arranging sessions and demonstrations conducted by an artist and a woodcarver. (If enough children are present, a puppet show will also be presented.) Times for these functions will be announced later. □

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## Doctor Harrison Wins Top Award in AMA Contest

Doctor William E. Harrison, Jr. of Tulsa has won the Silver Award in Category I of the 1980 National Awards Program for Medical Speakers conducted annually by the American Medical Association.

The significant honor was for his *You and Your Health* segments on Eyewitness News of Television Station KOTV (Channel 6). The program is a project of the Tulsa County Medical Society (TCMS).

A cash prize of \$500.00 was awarded by AMA to Tulsa County Medical Society for the program, and Dr Harrison received a plaque. His selection was formally announced at the AMA National Leadership Conference in Chicago, February 12-15.

Doctor Harrison appears as medical news commentator for a three-minute segment every other Wednesday, rotating with Dr Robert J. Hudson. The segments feature current medical topics and are seen on the noon and 5:00 PM news. Doctor Harrison and Dr Hudson write their own scripts, and many of the programs are filmed on locations outside the studio.

*You and Your Health* was developed last fall by the TCMS Council on Public Relations. Doctor George Kamp, chairman, and his group worked closely with Ian Pearson, news director of KOTV at the time, and later with Bob Allen, present news director at Channel 6.

Doctor Harrison and Dr Hudson were selected as commentators from over 20 candidates suggested by the Council. There has been an enthusiastic viewer response to the series, and TCMS considers it a major public relations and education activity.

Doctor Harrison's Silver Award was in the Television News Show category. Dozens of entries from across the United States, submitted by county and state medical societies, were judged by a 12-person panel headed by Susan Anderson, CBS-TV News, Chicago; Dave Baum, radio host, WAIT, Chicago; and David Zarefsky, PhD, chairman, Department of Public Address, School of Speech, Northwestern University, Chicago.

A member of the TCMS Board of Directors, Dr Harrison is an orthopedic and hand surgeon. He is also president-elect of staff at St John Medical Center. □

# If you're disabled, what happens to your earning power?

Think how an unexpected accident or illness could halt your income at any moment . . . and you'll realize how important **Disability Income Insurance** can be. Your Oklahoma State Medical Association sponsors an excellent group program which provides up to **\$500 a week** in benefits — benefits designed to help you and your family through periods of health and economic uncertainty — benefits of steady, continuing income!

The OSMA also sponsors companion programs to further meet your economic needs should an accident or illness strike . . . they are the **Overhead Expense Insurance, Full-Time Accident Insurance** and no-hassle **Hospital Indemnity Insurance** plans, all offering high-benefit, low-cost coverages which are only available through group arrangements of this type. For full particulars, contact Don Lanier at . . .

## C. L. FRATES & COMPANY, INC.

Administrator, OSMA Group Insurance Plans  
720 N.W. 50th Street, Oklahoma City, OK 73118 (405) 848-7661

## Deaths

WILLIAM R. MORRIS, MD  
1924-1981

William R. Morris, MD, medical director of the Western Electric Works, Oklahoma City, died January 17, 1981. Born in Kansas City, Missouri, Morris, 56, was graduated from the University of Tennessee School of Medicine in 1948. He had practiced in Missouri and Louisiana before coming to Oklahoma City in 1966. He was a member of the board of directors of the American Occupational Medical Association, a past-president of the Oklahoma Occupational Medical Association, a member of the American Academy of Clinical Toxicology, the American Public Health Association, the Academy of Environmental Health Sciences and the American Heart Association.

CHARLES G. STUARD, MD  
1909-1981

A Tulsa ophthalmologist for 39 years, Charles G. Stuard, MD, died January 30, 1981. A native of Waurika, Dr Stuard was graduated from the University of Oklahoma College of Medicine in 1937. His practice was established in Tulsa in 1940, where he retained a one-physician practice until his retirement in 1979. Last year, Dr Stuard was named "Doctor of the Year" by the Auxiliary to the Tulsa County Medical Society. He was a Life Member of the OSMA, a fellow of the American Academy of Ophthalmology and Otolaryngology and the American College of Surgeons. □

## 1981 OSMA ANNUAL MEETING

SHANGRI-LA LODGE

May 7-10, 1981

Afton, Oklahoma

## IN MEMORIAM

1980

<i>Merle L. Whitney, MD</i>	<i>February 4</i>
<i>Donald D. Lensgraf, MD</i>	<i>March 3</i>
<i>Charles H. Eads, MD</i>	<i>March 8</i>
<i>Ollie McBride, MD</i>	<i>March 10</i>
<i>Paul C. Gallaher, MD</i>	<i>April 20</i>
<i>Ennis M. Gullatt, MD</i>	<i>April 26</i>
<i>John E. Highland, MD</i>	<i>April 28</i>
<i>H. Violet Sturgeon Minton, MD</i>	<i>April 29</i>
<i>Elton W. LeHew, MD</i>	<i>May 3</i>
<i>C. W. Arrendell, MD</i>	<i>May 6</i>
<i>Edward A. Abernethy, MD</i>	<i>May 9</i>
<i>William F. Thomas, Jr., MD</i>	<i>May 17</i>
<i>Robert C. Lawson, MD</i>	<i>May 17</i>
<i>Robert L. Lembke, MD</i>	<i>June</i>
<i>Joseph Fulcher, MD</i>	<i>July 2</i>
<i>Emmett O. Martin, MD</i>	<i>July 15</i>
<i>James R. Colvert, MD</i>	<i>July 22</i>
<i>Thomas J. Hardman, MD</i>	<i>July 24</i>
<i>Kelly M. West, MD</i>	<i>July 28</i>
<i>Tom S. Gafford, MD</i>	<i>August 4</i>
<i>Joseph J. Swan, MD</i>	<i>August 25</i>
<i>Milton J. Serwer, MD</i>	<i>August 28</i>
<i>Henry B. Jenkins, MD</i>	<i>August 28</i>
<i>I. F. Stephenson, MD</i>	<i>September 7</i>
<i>Emory E. Beechwood, MD</i>	<i>September 9</i>
<i>Paul B. Champlin, MD</i>	<i>September 17</i>
<i>Bernard Brock, MD</i>	<i>September 25</i>
<i>Lee Pullen, MD</i>	<i>October 6</i>
<i>Walter E. Sethney, MD</i>	<i>October 14</i>
<i>Ralph R. Nepveaux, MD</i>	<i>October 19</i>
<i>John M. Parrish, MD</i>	<i>November 8</i>
<i>Franklin D. Sinclair, MD</i>	<i>November 16</i>
<i>Henry K. Speed, MD</i>	<i>November 17</i>
<i>Joel T. Woodburn, MD</i>	<i>November 18</i>
<i>Frank R. Viereg, MD</i>	<i>December 6</i>
<i>Robert C. Bowers, MD</i>	<i>December 31</i>

1981

<i>Athol L. Frew, Jr., DDS, MD</i>	<i>January 1</i>
<i>William R. Morris, MD</i>	<i>January 17</i>
<i>Charles G. Stuard, MD</i>	<i>January 30</i>



## Energy Conservation Becomes a Health Hazard

Some energy conservation procedures are causing health problems says an article in a recent *Journal of the American Medical Association* (JAMA). The article even recommends that such energy conservation procedures should be stopped pending further study. But Marc Roberts, PhD, Oklahoma state epidemiologist, says he is surprised that a recommendation as strong as that has been suggested.

Peter A. Breyse, University of Washington School of Public Health and author of the JAMA article said escalating fuel prices have encouraged home-owners to add weather stripping around doors and windows to prevent heat loss. Consequently, air exchange that used to leak into homes through and around doors and windows has been reduced. According to Breyse's article, air-tight homes are now permitting pollutants to build up to dangerous levels. He specifically warned against the use of urea formaldehyde foam insulation. Breyse said health problems have been encountered because of such energy conservation methods and that such procedures should be halted until further study is conducted.

Doctor Roberts said the Oklahoma health department has received very few reports which relate such energy conservation efforts. He says the recommendation to stop such procedures pending further study seems a bit drastic and that other steps could be taken to reduce pollution in air-tight buildings.

Doctor Roberts said he has attended several national conferences which focused on such problems. He said the major concern expressed at the conferences about pollution in air-tight buildings did not involve homes, but rather structural office buildings. The air exchange in structural buildings is usually even more limited than in homes, he said. Most homes have windows that will open to allow for periodic air-exchange while some offices do not even have this advantage. Despite these conditions, Dr Roberts said several suggestions were made at the conferences to help reduce pollution problems even in structural office buildings. Such recommendations included making regular filter changes in copy machines and limiting the amount of office equipment in each room.

"There are still things that can be done to reduce this problem and still maintain energy efficiency," Dr Roberts said. □

## Hess Addresses AMA Seminar

Richard Hess, OSMA associate executive director, addressed a national seminar recently which was held in conjunction with the AMA Leadership Conference.

Hess conducted a seminar for public relations directors of state and county medical societies on how to produce and distribute television public service announcements. Hess gave instruction on how to write scripts for television spot announcements, how to qualify for public service time, how to work within a budget, how to work with an advertising agency, and how to judge the program's success. Following the seminar, Hess monitored a workshop for public relations directors of large medical societies.

Within the last four years, OSMA has received nearly \$250,000 in complimentary air time. Since 1977, OSMA has produced six of its own television spot announcements and two radio spot announcements. Additionally, OSMA has customized two AMA television spot announcements for use in Oklahoma.

Several state medical societies have now purchased OSMA-produced announcements for use in their own states. Eight societies have purchased a total of 25 television spots from OSMA. Consequently, OSMA has been able to recoup approximately one-third of its production costs. □

## OSMA Membership Continues To Grow

Nearly 200 more doctors joined OSMA during 1980 than in the year before. Previously, OSMA had 2,558 regular members and 273 resident members for a total of 2,831 active members. Now OSMA's membership count is 3,018. This includes 2,708 regular members and 310 resident members.

This increase marks the eighth consecutive year in which OSMA has increased its membership as well as membership in the American Medical Association.

In addition, OSMA has experienced an increase in its student membership. In 1979, OSMA had only one student member. Since that time OSMA has participated in a student membership drive with the Oklahoma County Medical Society. The effort has successfully increased OSMA's student membership to 85. □

## Calendar of Events

### March 15-20

The Oklahoma Physicians Spring Retreat will be held at Padre Island. Interested physicians should contact the Office of CME, College of Medicine, University of Oklahoma Health Sciences Center or call Irwin H. Brown, MD, course coordinator at 405 946-0548.

### April 4

Irving Leopold, MD, distinguished professor and chairman, Department of Ophthalmology, University of California at Irvine, will deliver the Tullos Coston Lectureship at 8:10 AM on Saturday, April 4, 1981. This lectureship is sponsored by the Oklahoma Residents Alumni Association and is also the 5th Annual Meeting of the University of Oklahoma Ophthalmology Residents. The Tullos Coston Lectureship was founded by the alumni in honor of Tullos Coston, MD, former chairman of the Department of Ophthalmology, The University of Oklahoma Health Sciences Center.

### April 11

The Third Annual Infectious Disease Symposium for Clinicians will be conducted at Mercy Health Center in Oklahoma City. Topics during the morning session will involve nervous system infections and the afternoon session will focus on newer diseases. For further information contact Mercy Health Center at 405 755-1515.

### May 7-11

The 1981 OSMA Annual Meeting will be held at Shangri-La lodge in Afton, Oklahoma. (See pages 81-88.)

### May 11

Physicians and medical professionals are invited to attend the Fourth Annual Oklahoma Sudden Infant Death Syndrome Awareness Day to be conducted by the State Department of Health. The event will be held in the Center for Continuing Education room in the Ben H. Nicholson Tower at the Oklahoma Children's Memorial Hospital from 8:00 AM to 4:00 PM. Abraham Bergman, MD, vice-president of the National Infant Death Syndrome Association and Ruth Yaeger, assistant professor of nurs-

ing at the University of Rochester, Rochester, NY, will address the sessions. The registration fee is \$12. For further information call 405 271-4471.

### May 15-16

Developmental Pediatrics-Current Concepts in Infancy and Early Childhood is a continuing education program to be sponsored by the State of Oklahoma Teaching Hospitals (SOTH). It will be held in the Center for Continuing Education room, Ben H. Nicholson Tower—fifth floor, Oklahoma Children's Memorial Hospital 940 NE 13th, Box 26307, Oklahoma City, OK 73126. For more information either write or call 405 271-5663.

### June 6

Second Annual Current Concepts in Children's Medicine and Surgery will also be conducted by the State of Oklahoma Teaching Hospitals in the Center for Continuing Education at the Oklahoma Children's Memorial Hospital, 940 NE 13th, Box 26307, Oklahoma City, OK 73126. For more information either write or call 405 271-5663. □

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## **Secretary Schweiker Addresses Leadership Conference**

Richard S. Schweiker, secretary of the Department of Health and Human Services, has identified fraud and abuse as items which will get his immediate attention. The secretary was addressing approximately 1,000 persons during the AMA Leadership Conference in February. Schweiker also said that he and the department intend to focus considerable attention on reducing and erasing regulation of the health care industry.

Oklahoma was represented at the conference by Floyd F. Miller, MD, president; Elvin M. Amen, MD, chairman of the board; William M. Leebron, MD, immediate past president; and Richard L. Hess, associate executive director.

Oklahoma was recognized during the conference for its efforts in membership recruitment and retention. OSMA was one of three societies to receive an award for increasing its AMA membership totals for the eighth consecutive year. Total OSMA membership now exceeds 3,000. □

## **A Cost-Effective Alternative For Acquiring CME**

Doctors can cut the cost of expensive continuing medical education (CME) programs by taking CME courses in their homes or offices. How? The American Medical Association is offering video clinics to any member who is interested.

AMA's video clinics are in-depth courses which involve from two to six hours participation time. The programs include a complete analysis of case-related physiology, etiology, diagnosis, treatment and prognosis.

An entire AMA video clinic package includes color videotapes, self-assessment tests and an illustrated study guide. The study guides are handy references for doctors' personal medical libraries which allow for reviewing the content of the video clinics at later times.

New courses that are now available through AMA's CME video clinics include "Acute Gastrointestinal Bleeding," "Antibiotic

Therapy in Office Practice," "The Depressed Patient," "Bronchial Asthma," and "Alcoholism: Early Diagnosis and Management."

For further information about purchase or rental of the AMA video clinics contact the Department of Marketing Communications, American Medical Association, 535 N. Dearborn Street, Chicago, IL 60610, 312 751-5951. □

## **Oklahoma Hospital Association Hires McEwen**

Michael T. McEwen has been named recently as vice-president for government relations by the Oklahoma Hospital Association (OHA) for its Oklahoma City office. He has also assumed the position of executive director for the Greater Oklahoma City Area Hospital Council.

McEwen is replacing Brett Husserl, who resigned in January from OHA's Oklahoma City office as the executive director for the Greater Oklahoma City Area Hospital Council and as vice-president of OHA. Husserl is now a vice-president for South Community Hospital, Oklahoma City.

McEwen will focus upon several new responsibilities which OHA has assigned recently to its Oklahoma City office. Such duties will include a variety of legislative activities.

Previously, McEwen was the former Eastern Region Marketing director for Prime Care Corporation where he conducted planning and analysis activities for health care utilization and management.

McEwen has obtained an MA in International Relations from the University of Oklahoma. In addition, he has written several articles which address various aspects of international terrorism including the role of the mass media and aspects of health case planning. He was also a former radio and television news director. Additionally, he is a National Guard officer and is assigned to the headquarters of the Oklahoma National Guard.

OHA has been officing at the OMSA headquarters for approximately nine months. □

## Book Reviews

**Recent Advances in Clinical Virology.** No. 1, edited by A. P. Waterson, 210 pages New York: Churchill Livingstone, 1977, Price \$22.00.

This small volume contains twelve short essays on subjects of current or potential interest to physicians. The reviews have varying relevance to the practice of clinical virology. All of the 14 authors are British and the selection of topics mirrors contemporary problems under investigation in Great Britain. Although the topics cover a wide variety of subject matter, the major emphasis is upon human viral diseases.

In his preface, the editor, Professor Waterson, emphasizes the difference between the expressions "medical" and "clinical," because he believes the latter can be used for both medical and veterinary medicine.

The advances catalogued are of various kinds. There are newly-discovered viruses for long-recognized diseases, such as transmissible infant gastroenteritis. This is an interesting example of what is becoming an increasingly common phenomenon, namely the recognition and characterization of a virus by electron microscopy before its culture in the laboratory. There are advances in the understanding of the relation of well known viruses to recognized diseases, such as the once-unsuspected role of measles virus in subacute sclerosing panencephalitis. Another category includes advances which have resulted from the appearance of entirely new diseases caused by entirely new viruses. Lassa fever is such a disease, although the virus concerned is a member of a well-characterized group, the arenaviruses.

The subjects of six of the essays pertain to infections of the central nervous system: herpesvirus encephalitis, subacute sclerosing panencephalitis, Creutzfeldt-Jacob disease, Scrapie agent, rabies and the papovaviruses. The essay on herpes encephalitis by Longson and Bailey is of a special relevance to clinical medicine since it outlines work on experimental chemotherapy of a systemic viral infection, an area of increasing importance in clinical medicine. The comments on latent and slow-virus infections are particularly timely. Four chapters are devoted to the status of vaccines for rubella, rubeola, rabies and cytomegalo-

viruses. The improvement in rabies vaccines produced by tissue culture methods are emphasized. Other subjects covered include acute viral gastroenteritis, Lassa virus and coxsackievirus infections of the heart. The last by N. R. Grist is an excellent summary of a problem which has assumed increasing significance since the ecology of enteroviral diseases was modified by development of poliovirus vaccines some twenty years ago.

All the authors demonstrate a command of their individual subject areas giving brief but cogent and interesting introductions and discussions of practical pertinence to clinical virology. The photographs and tables are of high quality and the index provides a handy reference to the diverse subjects.

Despite the individual excellence of each section, the book, because of its wide ranging subject contents will have only limited value to most physicians other than those with specific clinical interests in the topics included or to virologists. It can be recommended for the intended purpose. The book is designated as "number one" and it is hoped that further publications concerning this important topic will be forthcoming. *Harris D. Riley, Jr., MD*

**Bergey's Manual of Determinative Bacteriology.** Eighth Edition. R. E. Buchanan and N. E. Gibbons, Co-Editors. Baltimore: The Williams and Wilkins Company, 1974. 1246 pages. Price \$45.00.

After a period of 17 years, the eighth edition of Bergey's Manual — the "bible" that microbiologists have been awaiting — made its appearance. However, it bears little resemblance to any of its predecessors; and now that it is here, the question of what to do with it immediately arises. The concept behind this edition, as explained in the preface, originates from the major constructive criticisms that were made of earlier editions; thus, the present edition shows many significant departures from the format of earlier ones to which microbiologists have been accustomed.

The eighth edition is a multi-authored work prepared in a uniform format by "131 authors, from 15 countries" and assembled by the editors. Most of the authors are experts who have had considerable experience with the organisms about which they have written.

The bacteria are grouped into the nineteen



sections of the work which are called "Parts" and given vernacular names. There is little explanation for this classification.

In some portions of this edition, the classification of given group of microorganisms has been considerably improved; in other parts, however, it seems to be a return to the disorganization of other editions. While this edition is meant to assist in the identification of bacteria, it will definitely require considerable adjustment on the part of many medical and clinical bacteriologists. It requires familiarization even by a person who is accustomed to previous editions. For example, the new description of the Enterobacteriaceae will be completely foreign to American microbiologists because it is inconsistent in many areas with the prevailing classification and nomenclature used in the United States. This is due, presumably, to the fact that none of the contributors to this family were Americans. There was little opportunity

to have any input of the American prevailing viewpoint. Thus, many classifications will have to be relearned.

There exists an alarming number of errors in this eighth edition. A 22-page Addendum and Corrigendum (pages 1247-1268) was issued some six months after publication of the book. A corrected second printing of the eighth edition seems an absolute necessity. All of the material now in Addendum and Corrigendum, plus material stemming from correction of other existing errors, should be inserted at the proper positions in the text.

This edition contains enhanced information content which is reasonably up-to-date. The format, including typography, tables, and illustrations, is considerably better than in previous editions. It is regrettable that this edition is marred by so many errors. *Harris D. Riley, Jr., MD* □

## Miscellaneous Advertisements

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## Nursing Shortage

I can't resist the urge to say a few words about the growing shortage of nurses in this country. And my weakness will probably get me into trouble with the nurses. But I will fashion a shield, of sorts, with some disclaimers and do my best to dodge the spears and arrows which might be aimed at me. I have no special knowledge of the nurses' profession and only a foggy understanding of current undergraduate training programs for student nurses. I have done no research on the subject and my comments are purely my personal views and opinions.

Simply stated, I believe that the shortage of nurses is a direct result of the continuing and accelerating trend to remove nurses from nursing. They are moving away from personal contacts with patients, out of a profession and its unique rewards.

Professionals are professional because they render personal services and they practice their professions in the immediate presence of those they serve. Of course, professionals must also do a great deal of work common to many jobs. But the real rewards for the professional come from the responses to the personal services they render; the smile, the handshake, the quenched tear, the words of endearment and gratitude. These are the treasures perceived by most students who elect to endure the burdens of time and money, submit to the discipline of and make the sacrifices demanded by the course of study and training leading to certification as a professional.

And I am convinced that the most powerful, if not the most universal motivation for the prospective student of every profession is the desire to live a life which is filled with opportunities to serve other human beings in their immediate presence.

More and more, nurses are becoming personnel supervisors, equipment technicians, ward managers, form-completers, paper-and-pen pushers, administrative assistants and pill-counting, key-carrying reporters. Nurses seeking rewards sufficient to compensate the sacrifices they made to become nurses will never find them in such activities.

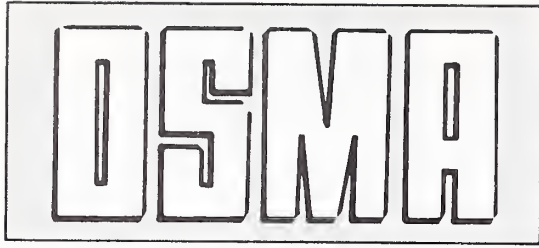
Another powerful element of motivation for the prospective nurse is the prestige which society affords the profession, and nurses have not escaped the effects of the unrelenting efforts of the media and the federal bureaucracy to disparage the entire medical profession. Those efforts have taken much of the luster from the image of the nurse in her community. As prestige wanes, so does its motivational significance.

Irrespective of their devotion, courage and commitments, nurses have rarely been paid what they deserve for their work, arduous though it is. While women in other vocations are enjoying a few late-in-coming pecuniary gains, the nurse remains, in my opinion, underpaid for her services. Also, the epidemic of medical malpractice and liability suits has befallen nurses too, a fact which further depreciates the never-robust monetary rewards of a career in nursing. Rather than gaining in significance, the element of financial reward has virtually disappeared as a motivating influence.

Ironically the sacrifices inherent in the processes of becoming and pursuing a career as a nurse have not lessened but increased in the past twenty-five years. Obviously the broadening disparities between rewards and sacrifices must be adjusted before the shortage of nurses can be corrected. The first step should be to put nurses back to nursing. I believe the nursing shortage is the major cause of the nurse shortage.

Is my nose bleeding?

MRJ



# THE OKLAHOMA STATE MEDICAL ASSOCIATION • OKLAHOMA CITY, OKLAHOMA

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FLOYD F. MILLER, M.D., President  
3233 East 31st  
Tulsa, Oklahoma 74104  
1980-81

*On February 10, 1981, the following letter was written to Governor Nigh:*

*The Honorable George Nigh  
Governor of the State of Oklahoma  
Oklahoma State Capitol Building  
Oklahoma City, OK 73105*

*Dear Governor Nigh:*

*The Oklahoma State Medical Association's Board of Trustees voted unanimously in its meeting on February the 8th to support the expansion of Oklahoma Memorial Hospital – that the project be completed as soon as possible and that construction be accomplished under the supervision of the Department of Human Services.*

*There were many reasons for the Board's decision, but central to the many complex issues is the fact that it is the opinion of our Board that the citizens of Oklahoma deserve a quality teaching hospital to train the medical personnel needed to care for our population, and an accredited medical care institution sufficient to accommodate Oklahoma patients who need and elect to receive their care at Oklahoma Memorial.*

*In the early 1960's the dream of a quality teaching and medical care facility resulted in specific plans that were approved by the Oklahoma public in the "Hero" Bond Issue of 1968. The completion of a "University" Hospital has been in a quagmire periodically ever since. We think any delay would be nonproductive and unfortunate for the Oklahoma public, and we urge you to complete the plan advocated by your offices and approved by the Oklahoma Legislature last year.*

*If the Association can be of any help to you in the completion of these plans, please let us know.*

*Sincerely,*

*Floyd F. Miller, M.D.  
President*



The leadership of OSMA realizes that there is difference of opinion concerning the construction of the Oklahoma Memorial Hospital under the supervision of the Department of Human Services. However, it is our feeling that if the hospital is to be built, only that department has the resources and the initiative to do so in the immediate future.



The present University Hospital, now known as "Old Main," was built in 1918. Fire escapes on this building are exposed to the outside air. Wiring is ancient. Federal authorities have threatened to cut off payment for Medicaid and Medicare patients. There is concern that the University of Oklahoma College of Medicine could lose its accreditation because of the inadequate teaching hospital.

It was planned to construct a new hospital from the "Hero" Bond Issue in 1968, but the funds were insufficient to complete the construction. The state financed the building of a kitchen and other facilities to serve 1,000 beds. But when it came to constructing the hospital, there were funds for only 214 beds. Therefore, the beds in the old building were kept in use, and employees must continue to take food by hand from the new kitchen to the beds in the old hospital, a distance of approximately a quarter of a mile.

Last year, Governor Nigh recommended the transfer of the University Hospital to the Department of Human Services (Welfare Department). Many of us had philosophical concerns about the transfer. This was a hospital whose primary purpose was education, rather than to be a welfare hospital. However, one need only to look at the Children's Hospital which has been under the Human Services Department for many years to understand that the department knows how to build, maintain, and energize a teaching hospital. Lloyd Rader has similar plans for a first-class University Hospital, and we desperately need it.

On the day of the transfer, July 1, 1980, contracts were let by the Welfare Department. In essence, these were to tear down "Old Main," to properly acquire the necessary parking spaces, and to provide adequate physicians' offices. By the end of last year, 23 million dollars in contracts had been let for the above purposes, and another 5.5 million dollars went for an emergency medicine trauma center.

There are now 214 beds in Everett Tower, and the additional new beds will be built on 3 new floors of that building. When the new hospital is completed it will have 420 beds compared with 317 that are present now in Everett Tower and "Old Main." Approximately 12 million dollars will be required for the additional 3 floors in Everett Tower. Another 5.5 million dollars will be used for the required additional elevators and connecting building.

New out-patient facilities are needed. However, this would require at least an additional 23 million dollars, and this is not available at this time.

Many legislators are unhappy with Mr Rader's actions concerning the construction of the hospital and other facilities. I am sure all of you have heard of the "shortfalls" in the welfare department. However, the newspaper reporting has been rather confusing. The department lost approximately 17 million dollars in federal matching funds because the per-capita income of Oklahomans has increased at a rate much greater than that of the rest of the nation. Because of double digit inflation, an additional 17 million dollars will be required to maintain Medicaid this year at the same level as 1980. Sales tax from utilities was removed last year, and this resulted in a loss of approximately 20 million dollars to the department. If the sales tax were removed from drugs, this could produce another 9 million dollar loss, and the removal of sales tax from groceries could result in as much as 40 to 50 million dollar loss of funds. Although there may be some concern among doctors about the programs of the Welfare Department, surely no doctor could be disgruntled about the administrative ability of the agency. Only approximately 4.3 percent of all monies handled by the department are consumed by administrative requirements.

Many of our legislators do not feel that Oklahoma can afford a first-rate teaching hospital. I disagree. We have settled for second-rate too long. I agree with Governor Nigh when he says: "Whatever it takes for us to have a fine medical teaching hospital in Oklahoma, I am going to support."

*Lloyd Rader*

# An Investigation of the Association Between Cervical Cancer and Oral Contraceptive Use

RICHARD A. WILLIS, PhD  
KATHERINE B. SOHLER, PhD  
PATRICK M. MORGAN, DVM, DrPH  
JOAN K. LEAVITT, MD

*A retrospective study of 96 matched pairs of women participating in a cervical cytology screening program was conducted. Cases were defined as those women having biopsy results of cervical dysplasia, carcinoma in situ, or invasive carcinoma. Controls were selected from those women with repeated negative findings on cytologic examination and were matched by age, race, and county of residence. Data were collected by a mailed questionnaire inquiring about the use of oral contraceptives, and a number of suspected risk factors for cervical cancer. The results indicated an increased risk of cervical cancer or its precursors among smokers, women married more than once, women whose husbands had been married more than once, women with a history of pregnancy before age 20 years, and women with histories of venereal warts and/or gonorrhea. It was concluded that oral contraceptive use was not associated with an increased risk of cervical cancer.*

From the Department of Biostatistics and Epidemiology, University of Oklahoma Health Sciences Center, and the Oklahoma State Department of Health, Oklahoma City, Oklahoma.

Patients serving as the population for this study were part of a cervical cancer screening program which was financed by National Cancer Institute contract number NO1-CN-55077.

Cervical cancer is an important cause of morbidity and mortality among US women. Investigations of possible risk factors associated with this disease have been conducted over at least the last 135 years. In 1842, Rigoni-Stern noted that uterine cancers were more common among married women than among unmarried.<sup>1</sup> It is likely that most of the cases reported by Rigoni-Stern were cervical cancers.<sup>2</sup> Since the time of Rigoni-Stern, a number of risk factors associated with cervical cancer have been identified. Early age at marriage; early age at onset of sexual activity; multiple sexual partners; history of syphilis, gonorrhea, or venereal herpes; uncircumcised sexual partners; early age at menarche; early age at first pregnancy; and history of smoking cigarettes have all been shown to be associated with an increased risk of developing cervical cancer.<sup>2-12</sup>

With the exception of smoking cigarettes, all of these risk factors logically can be considered to be intercorrelated indicators of a sexually-related disease entity. Oral contraceptive use could have one or more of several roles in cervical cancer etiology. Oral contraceptives are not a barrier form of contraception and would, therefore, be ineffective in preventing the transmission of a viral or other microbial agent. Oral contraceptives may produce a



greater sense of security about unwanted pregnancies and allow users to be more promiscuous than those using other forms of contraception. Oral contraceptives may create a favorable histologic environment for carcinogenic agents. Or, oral contraceptives may, themselves, be mildly carcinogenic.

Several investigators have examined the possible role of oral contraceptive use in the etiology of cervical cancer. High doses of various estrogens over a long period of time have been shown to induce carcinoma *in situ* and invasive carcinoma of the uterine cervix in adult mice and reversible squamous metaplasia in monkeys.<sup>10</sup> In humans, the evidence is less clear. Of ten studies reviewed by Vessey,<sup>13</sup> two reported negative associations; four found no association; and four found positive associations. Two more recent studies<sup>14,15</sup> found positive associations and one,<sup>3</sup> no association. This conflicting evidence may arise, in part, from the presence of other uncontrolled risk factors in the study populations. Many of the early studies did not report analytic attempts to control known risk factors. This study collects data on the known risk factors and uses an experimental design that attempts to control for them in the analysis of the data on oral contraceptive use.

#### MATERIALS AND METHODS

The population from which cases and controls were selected consisted of 123,031 women who received Pap smears at the Oklahoma State Department of Health and its associated cervical cytology clinics from July 1, 1974 through September 30, 1976. Cases were defined as those women having repeated suspicious,

inconclusive, and/or positive Pap smear results who were confirmed by biopsy to have cervical dysplasia, carcinoma *in situ*, or invasive carcinoma of the cervix uteri. This group consisted of 558 women. Controls were selected from those women who had only negative Pap smear histories. Two controls were matched to each case on the basis of race, age ( $\pm 3$  years), and county of residence. A questionnaire was mailed to each case and control. If the completed questionnaire was not returned, a second, and then, a third were sent. Women who failed to respond to the third mailing were considered to be nonresponders.

---

*Richard A. Willis, PhD, was graduated from the University of Oklahoma College of Health in 1979. Specializing in epidemiology, Dr Willis is presently associate professor of nutrition at the University of Texas at Austin. He is a member of the Society for Epidemiologic Research, the American Public Health Association, the American Institute of Nutrition and the American Association for the Advancement of Science.*

*Katherine B. Sohler, PhD, was graduated from Yale University School of Medicine and is presently associate professor of the Department of Biostatistics and Epidemiology, School of Public Health, University of Oklahoma Health Sciences Center. Doctor Sohler is a member of the Society of Epidemiologic Research and the American Public Health Association.*

*Patrick M. Morgan, DVM, DrPH, was graduated from the University of Georgia, College of Veterinary Medicine in 1958. Specializing in preventive medicine, Dr Morgan is professor and dean of the College of Veterinary Medicine, Oklahoma State University. He is affiliated with the Board of Scientific Advisors, the Delta Regional Private Research Center and a consultant, Professional Examination Service.*

*Joan K. Leavitt, MD, Commissioner, Oklahoma State Department of Health, was graduated from Boston University School of Medicine in 1953. Doctor Leavitt is a member of the University Hospital Advisory Council, the National Drinking Water Advisory Council, the Oklahoma Council for Health Careers and Manpower, Inc., the Health Manpower Advisory Council, and the executive committee of the Association of State and Territorial Health Officials.*

Table 1

Response to the Cervical Cancer and Oral Contraception Questionnaire by Cases and Controls — Oklahoma Cervical Cytology Project, 1974-1976

	Cases		Controls	
	No.	%	No.	%
Completed Questionnaire Returned	145	36.6	436	48.8
Completed Questionnaire Not Returned	222	56.1	396	44.3
Written Refusal to Complete the Questionnaire	29	7.3	62	6.9
TOTAL	396	100.0	894	100.0

Table 2  
Analysis of Age, Race, and Menopausal Status for Responding and Nonresponding Cases and Controls for  
Possible Nonresponse Bias — Oklahoma Cervical Cytology Project, 1974-1976

	Responding Cases		Nonresponding Cases		Responding Controls		Nonresponding Controls	
	No.	%	No.	%	No.	%	No.	%
AGE								
< 30 yrs.	53	36.6	112	44.6	177	40.6	214	46.7
30+ yrs.	92	63.4	139	55.4	259	59.4	244	53.3
Total	145	100.0	251	100.0	436	100.0	458	100.0
RACE								
Caucasian	114	78.7	173	68.9	353	81.0	320	69.9
Black	15	10.3	27	10.8	25	5.7	53	11.6
American Indian	15	10.3	48	19.1	49	11.2	79	17.2
Spanish American	1	0.7	3	1.2	9	2.1	6	1.3
Total	145	100.0	251	100.0	436	100.0	458	100.0
MENOPAUSAL STATUS								
Premenopausal	117	80.7	212	84.5	377	86.5	395	86.2
Menopausal or Postmenopausal	28	19.3	39	15.5	59	13.5	63	13.8
Total	145	100.0	251	100.0	436	100.0	458	100.0

All comparisons (Responding Cases vs. Nonresponding Cases and, Responding Controls vs. Nonresponding Controls) were found to be nonsignificant via Yates corrected Chi-square analysis *except for Race among the Responding and Nonresponding Controls* ( $P < 0.005$ ).

The questionnaire included items requesting information about oral contraceptive use as well as the following confounding variables: marital status, marital history, circumcision status of husband, socioeconomic status, age at first pregnancy, parity, history of problem pregnancies (miscarriages, stillbirths, and/or abortions), venereal and related disease histories, and cigarette smoking history.

Of the possible 558 cases, 162 could not be located by the postal service. They were excluded from the study. Similarly, 222 of the 1,116 controls were excluded. The excluded cases did not differ significantly from responders by age, race, or menopausal status.

The sample after exclusions consisted of 396 cases and 894 controls. One hundred forty-five (36.6%) of the cases and 436 (48.8%) of the controls returned completed questionnaires (Table 1). Table 2 displays data comparing responders and nonresponders on the basis of age, race, and menopausal status. Responding and nonresponding cases were not found to differ significantly for any of these variables. Responding and nonresponding controls were found to differ significantly only with respect to race. This suggested that any response bias in the sample would be related to race. To eliminate this possible bias, only data from whites were examined. Of the 114 white cases and 353

white controls who returned the questionnaire, 96 of the matched pairs remained. Data for these 96 pairs of women were analyzed using McNemar tests.<sup>16</sup>

## RESULTS

Data from the questionnaires submitted by the 96 pairs of Caucasian responders were analyzed for the following variables: marital status, age at first marriage, number of marriages of self and of husband, reported circumcision status of husband, level of education completed, annual family income, socioeconomic group, length of residence in present county, history of ever being pregnant, number of pregnancies, number of miscarriages, number of stillbirths, number of abortions, history of pregnancy before marriage, age of first pregnancy, age at menarche, history of syphilis, history of gonorrhea, history of venereal warts, history of oral contraceptive use, length of oral contraceptive use, history of smoking cigarettes, years of cigarette smoking, and number of cigarettes smoked daily.

Cases and controls were not found to differ significantly in their responses to the following questionnaire items:

- 1) marital status;
- 2) age at first marriage;



Table 3  
Variables for Which Matched Pairs of Caucasian Cases and Controls Did Not  
Differ Significantly\*—Oklahoma Cervical Cytology Project, 1974-1976

Variable	Cases		Controls		Pairs
	#	%	#	%	
Married at least once	92	95.8	91	94.8	96
Married before age 20	64	73.6	58	66.7	87
Husband circumcised (if known)	40	50.0	42	54.5	80
Education completed—9th grade or less	11	11.5	8	8.3	96
Annual family income—\$10,000 or less	65	67.7	57	59.4	96
Member of the middle or low social group	68	70.8	75	78.1	96
Resided in present county for 5 years or less	27	28.1	34	35.4	96
Pregnant at least once	90	93.8	85	88.5	96
Three or more pregnancies	52	63.4	54	65.9	82
Had at least one miscarriage	16	19.5	20	24.4	82
Had at least one stillbirth	1	1.2	1	1.2	82
Had at least one abortion	5	6.1	4	4.9	82
Was pregnant before marriage	46	56.1	37	45.1	82
Menarche before age 13	53	55.2	42	43.8	96
History of syphilis	2	2.1	0	0.0	96
Used oral contraceptives at least once	78	81.3	82	85.4	96
Used oral contraceptives for 6 or more years	30	40.5	29	39.2	74
Smoked 20 or more cigarettes per day	15	42.9	12	34.3	35
Smoked cigarettes for 6 or more years	24	68.6	18	51.4	35

\*All tests of significance are McNemar Tests

- 3) circumcision status of husband;
- 4) highest level of education completed;
- 5) annual family income;
- 6) social group;
- 7) length of residence in present county;
- 8) history of having been pregnant;
- 9) number of pregnancies;
- 10) history of having a miscarriage, stillbirths, and/or abortion;
- 11) history of extramarital pregnancy;
- 12) age at menarche;
- 13) history of syphilis;
- 14) history of ever using oral contraceptives;
- 15) length of oral contraceptive use;
- and 16) average number of cigarettes smoked per day.

The above data are presented in Table 3.

Table 4 displays data for those variables that significantly differed between cases and controls. Cases were more likely than controls to have reported being married more than once, 35 (39.1%) and 16 (18.4%), respectively ( $p < 0.01$ ). Similarly, husbands of cases were reported to have been married more than once more often than husbands of controls, 35 (40.2%) and 16 (18.4%), respectively ( $p < 0.01$ ). Sixty cases (73.2%) and 46 controls (57.3%) reported having been pregnant before age 20 ( $p < 0.05$ ). Cases reported a history of venereal

warts more often than did controls 8 (8.3%) and 1 (1.0%), respectively ( $p < 0.02$ ). Cases were also more likely to have reported a history of gonorrhea, 7 (7.3%) as compared to 0 (0.0%) of controls ( $p < 0.008$ ). Sixty-eight (70.8%) of the cases and 43 (44.8%) of the controls reported a history of smoking cigarettes ( $p < 0.001$ ).

It is possible that the use of oral contraceptives is in fact associated with cervical cancer, but that the association is hidden by the significant confounding variables. In an attempt to control for possible confounding the following analyses were performed: the 74 pairs in which both members used oral contraceptives were cast into 2 x 2 tables with respect to the significant confounding variables — multiple marriage of self, multiple marriage of husband, age at first pregnancy, and history of cigarette smoking. Data on history of venereal warts were too few for analysis. Table 5 summarizes the results of these analyses.

Histories of multiple marriage of self, of multiple marriage of husband and of smoking cigarettes were still significantly more common in cases than in controls. Because the differences were consistent in direction and risk factors continued to be associated with cases following this analysis, it does not appear that the confounding variables have masked a significant difference in oral contraceptive use.

Table 4

Variables for Which Matched Pairs of Caucasian Cases and Controls Differed Significantly\*  
Oklahoma Cervical Cytology Project, 1974-1976.

Variable	Yes/Yes†		No/No†		Yes/No†		No/Yes†		Significance
	No.	%	No.	%	No.	%	No.	%	
Have you been married more than once?	6	6.9	43	49.4	28	32.2	10	11.5	p<0.01
Has your husband been married more than once?	8	9.2	44	50.6	27	31.0	8	9.2	p<0.01
Were you pregnant before age 20?	36	43.9	11	13.4	24	29.3	11	13.4	p<0.05
Have you ever had venereal warts?	0	0.0	87	90.6	8	8.3	1	1.0	p=0.02
Have you ever had gonorrhea?	0	0.0	89	92.7	7	7.3	0	0.0	p=0.008
Have you ever smoked cigarettes?	35	36.5	20	20.8	33	34.4	8	8.3	p<0.001

\*All tests of significance are McNemar Tests.  
Response of case/response of control.

#### DISCUSSION

The data from this study support earlier work by others indicating an increased risk of cervical cancer among women with multiple sexual partners and among women reporting histories of venereal warts and/or gonorrhea<sup>1,4-6,8,10,12</sup>. These findings support the hypothesis that this disease may be correlated with sexual intercourse and possibly with a sexually transmitted agent.

This study also found, as have others,<sup>10, 11</sup> that smokers were at increased risk. Although a logical connection between cigarette smoking and a sexually transmitted disease may be a bit strained, it is entirely possible that cervical cancer may be produced by more than one mechanism. It is interesting to note that neither quantity of cigarettes smoked per day nor number of years that cigarettes were

smoked were found to differ significantly between cases and controls. It is difficult to explain this finding unless the cigarette smoke, itself, is not related to the development of the disease. Perhaps, whether one chooses to smoke or not to smoke is only secondarily related to the disease and some other factor that is directly associated with cervical cancer is also related to smoking.

The data do not support the hypothesis that oral contraceptive use is associated with an increased risk of developing cervical cancer or cervical dysplasia. In view of the wide use of oral contraceptives, a negative finding should be of some comfort to health practitioners and oral contraceptive users. Histories of multiple marriage of self or husband, other evidence of multiple sexual partners, histories of cigarette smoking, and histories of venereal warts and/or gonorrhea should alert health care pro-

Table 5  
Analysis of Confounding Variable Data from Caucasian Pairs  
in Which Both Members Used Oral Contraceptives —  
Oklahoma Cervical Cytology Project, 1974-1976

CONFOUNDING VARIABLE	NUMBER OF PAIRS	FINDING	SIGNIFICANCE
MARRIED MORE THAN ONCE	67	cases > controls	p<0.05
HUSBAND MARRIED MORE THAN ONCE	67	cases > controls	p<0.05
PREGNANT BEFORE AGE TWENTY	61	cases > controls	N.S.
EVER SMOKED CIGARETTES	74	cases > controls	p<0.01



professionals to the urgent need for at least annual monitoring by Pap smear so that early-state disease can be identified.

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# The Trespass of Subarachnoid Block

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*The spinal anesthetic, regarded by most  
as an innocuous procedure, may in fact  
be fraught with unsuspected dangers  
in some patients.*

Since Gustav Bier described his use in 1898 of intrathecally administered cocaine for anesthesia of the lower extremities, this procedure has, over the last century become common in the day-to-day world of rendering patients free from pain. However, too often the use of this technique has been looked upon as a mere "local anesthetic," which has falsely led some to the conclusion that this procedure is relatively innocuous for the patient. Following this line of thought, then, it is easy to believe that this procedure is probably the technique of choice for most or all of those patients in whom a general anesthetic poses a threat too great to their homeostasis and safety.

Perhaps the ultimate selection of the appropriate anesthesia lies in understanding

what a spinal anesthetic entails. When the various types of anesthetics are considered for the seriously-ill patient, much confusion results from a lack of understanding of the effects of anesthesia on the cardiopulmonary system.

Once an agent, such as tetracaine, is introduced into the subarachnoid space, its effects upon the cardiovascular system are primarily the result of the preganglionic sympathetic block produced by the agent. In short, the spinal block causes a pharmacologic sympathectomy, the effects of which are variable; and some patients will have little sympathetic block and few vascular changes; while others will experience profound effects which may result in cardiovascular collapse if left unchecked. This process is due to vasodilatation, peripheral pooling of blood, diminished venous return, and resulting decrease in cardiac output with ensuing hypotension. Generally, these effects may be countered by the administration of fluids and vasopressors. However, the oligemic but normotensive patient may have profound hypotension from sympathetic block since the decrease in blood volume is normally compensated by peripheral vasoconstriction. With sympathetic blockade this vasoconstrictive response is absent, resulting in a drop in blood pressure.

In the patient with compromised coronary artery flow, any decrease of significance in



diastolic pressure accompanied by a decrease in left ventricular end-diastolic pressure may result in further decreased coronary artery flow and myocardial ischemia. Because patients with coronary artery disease in particular require higher left ventricular filling pressures to maintain adequate coronary blood flow. Entertaining the use of spinal anesthesia in the patient with coronary artery disease carries with it the same risk of administering a potent vasodilating agent to the patient with angina pectoris. Contrary to the popular opinion that general anesthesia is dangerous for the critically ill patient, the use of inhalational agents such as fluothane and ethrane may be beneficial to the ischemic myocardium. These agents have been shown to reduce myocardial oxygen demand, and they offer some protection from the stress-effects of surgery.

Although spinal anesthesia affects cardiovascular function, it also plays a role in respiratory events which occur during surgery. Normal tidal volume is usually maintained under spinal anesthesia, even with high thoracic levels of sensory blockade. This is so because of the cervical innervation (C3-C5) of the diaphragm. Yet sensory input, being lost from the intercostal nerves because of the spinal anesthetic may give the patient the disquieting and discomforting sensation of air hunger. In the chronic obstructive pulmonary disease (COPD) patient whose ventilation is largely dependent upon accessory muscle and intercostal muscle functions this phenomenon may be most disconcerting if the anesthetic level is permitted to rise too high.

In several studies performed from the 1930's through the 1960's, it was demonstrated repeatedly, in the hands of skilled technical performers, that there are no differences in postoperative respiratory morbidity between general anesthesia and spinal anesthesia. In short, there appears to be no benefit—from a respiratory point of view—in choosing a spinal anesthetic. In fact, patients with bronchiectasis and chronic bronchitis who produce significant amounts of sputum may be worsened by spinal anesthesia because these patients are unable to compensate by hyperventilation or to clear secretions effectively by coughing.

An occasional complication of spinal anesthesia is the "total spinal." This is total body anesthesia which develops once the anesthetic level reaches the cervical spine. Accompanying

the total spinal may be respiratory arrest, secondary to blocking diaphragmatic innervation, severe bradycardia due to sympathetic outflow blockade, and cerebral hypoxia secondary to profound hypotension. The cause of the so-called total spinal is unknown. The patient with cardio-pulmonary instability may have an extremely difficult time coping with these physiological alterations. Of course, it is no one's intention to administer an anesthetic level higher than is needed, or to produce the dangerous effects of the total spinal; however, some patient's response to typical dosage schedules for subarachnoid block are atypical and unpredictable, depending upon several factors. These factors include the type of drug, its dose, its volume, and its specific gravity in relation to the specific gravity of the cerebrospinal fluid. The speed of injection, the intervertebral level of injection and the mixing factors are also important. Trendelenburg positioning of the patient is used to produce higher sensory levels, but in some cases, this maneuver may result in hypotension associated with a block that has drifted higher than predicted. Patient position and spinal curvature also affect response to the injection.

Hepatic function is normally unaltered by spinal anesthesia when a normotensive state is maintained in the patient. With hypotension, the liver, too, is affected because hepatic blood flow decreases by 28% as anesthesia reaches T2-3 spinal levels. An arteriovenous oxygen difference across the liver increases by 35% due to increased oxygen extraction. Although in the postoperative state hepatic function generally is unaltered by these hypotensive effects, when coupled with previous hepatic compromise this insult may cause further hepatocellular damage.<sup>1, 2</sup>

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Also to be considered in the selection of spinal anesthesia is the trauma of lumbar puncture in the septic patient. Such patients undergo the risk of bacterial seeding of the subarachnoid space with possible ensuing bacterial meningitis. In some instances lumbar puncture may result in peri-dural hemorrhage, requiring an emergency decompression laminectomy. For this reason spinal anesthesia is best avoided in patients with coagulopathies, whether pathogenic or the result of therapy.

The use of spinal block in the parturient woman is also common practice. The combination of spinal-induced hypotension and the supine hypotension of pregnancy may be enough to induce severe hypotension in the mother, compromising not only her cardiovascular system, but the placental blood flow and fetal stability as well. In fact, as much as one liter of five % dextrose in lactated Ringers solution has been administered to a pregnant patient prior to induction of spinal anesthesia in an attempt to prevent hypotension, only to have the patient become hypotensive in spite of this large fluid load.

As is evidenced by a quick review of the involvement of the organ systems just described, spinal anesthesia can cause, in many cases, great physiological trespass. The spinal

anesthetic has been used for nearly a century, and probably it will continue to provide the patient a fairly simple, safe, and efficacious system of relief from the rigors of surgery in selected cases, but one must not dismiss lightly the physiological alterations caused by spinal anesthesia. Those alterations may be quite severe, and in the critically ill, they may be organically intolerable.

Spinal anesthesia frequently is not the appropriate anesthetic technique for the critically ill patient. It is not always as innocuous as it may seem, and the entire procedure should be carefully evaluated, regarding its potential benefits versus its hazards. To select spinal anesthesia in preference to general anesthesia may do the patient a disservice, for some effects of general anesthesia may be beneficial to compromised organ systems, such as in the case of the ischemic myocardium. The selective process must be individualized relative to the patient's needs, just as any medical procedure is selected. Only through this process can the patient be offered the best choice of anesthesia.

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# Percutaneous Transluminal Angioplasty and Recanalization in the Treatment of Peripheral Vascular Disease

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*Percutaneous transluminal angioplasty offers a third alternative to medical or surgical treatment in peripheral occlusive disease with advantages of low mortality and morbidity.*

Diagnostic catheterization has long been an essential ingredient in management of peripheral arterial occlusive disease. In 1980 the use of the catheter has advanced to that of a therapeutic tool with the advent of transluminal angioplasty; the percutaneous, fluoroscopically guided use of a catheter to relieve stenotic lesions of the vascular system.<sup>1</sup> American angiologists Dotter and Judkins reported the technique sixteen years ago. Transluminal dilation was performed on an elderly female with a gangrenous extremity who had refused amputation. Circulation was restored to her foot and amputation avoided by dilating with coaxial catheters, a tight popliteal artery stenosis. Despite the dramatic results in this patient and others, percutaneous transluminal angioplasty (PTA) did not become an accepted form of treatment for atherosclerotic vascular stenosis until the advent of the Gruntzig balloon catheter in 1974. This double lumen, polyvinyl bal-

loon catheter has since been used in over 15,000 patients with iliac, femoropopliteal, renal, and coronary arterial occlusions with initial success in restoring patency in greater than 90%.<sup>2</sup> Five year follow-up studies of numerous series in Europe and America have established the efficacy of the procedure in treatment of the ischemic limb. A widely used and respected technique, PTA offers an exciting new approach to the treatment of a formidable disease process.

Clinical indications for PTA are similar to those for surgery, namely, incapacitating claudication or pain at rest. In addition, PTA is indicated for patients in Fontaine class IV with a gangrenous extremity and for whom bypass surgery is technically not possible, or in cases where amputation is indicated. In patients who are too debilitated to undergo the rigors of general anesthesia and surgical trauma, it is the sole means of limb salvage. Morphological indications are subtotal or total occlusion of less than 10 cm in length of the superficial femoral or popliteal arteries, and subtotal occlusion of the iliac artery. In cases of both iliac and femoropopliteal stenoses, proximal-vessel dilation combined with distal-vessel surgery is performed since viability of a femoropopliteal graft is dependent on the inflow of blood from the iliac artery.

PTA is the treatment of choice for the following: a) Single, short-segmental stenosis of the superficial femoral, popliteal or iliac artery. b) Stenosis or complete occlusion of the superfi-

cial femoral artery with poor distal reconstitution; patients with such problems are not surgical candidates. c) Stenosis or occlusion of the deep femoral artery and poor perfusion d) Stenosis of the popliteal artery distal to a femoral-popliteal bypass graft. e) Stenosis of the distal arteries of the leg. f) Medical contraindication to surgery.<sup>3</sup>

The local anesthesia for transluminal balloon dilation is the same as that given for angiography alone. All patients are evaluated with Doppler segmental pressure measurements and diagnostic angiography prior to PTA. Select cases are fully anticoagulated with heparin or Coumadin. The puncture site is locally anesthetized and an antegrade puncture is made in the common femoral artery to allow for superficial femoral angioplasty. A straight Teflon catheter is advanced over an appropriate guide wire distal to the occlusion. Direct distal and proximal intravascular pressure measurements are obtained. The dilating balloon catheter is then positioned in the distal-most portion of the obstruction and the balloon inflated to a select pressure (4-to-10 atmospheres) by a pressure pump specially designed to deliver and remove quickly the specified pressure. The balloon segment of the catheter has the unique expansive characteristics of a central expanding force compressing the internal, intruding core against the intact, outer confining arterial wall. It is applicable of "controlled injury" by *in situ* redistribution of luminal occlusive material to effect an enlarged, still lined lumen surrounded by the unchanged outer arterial wall. As a safety feature, the balloon expands only to its predetermined diameter should the working pressure be exceeded. Inflation and deflation of the balloon is repeated until the entire occluded segment has been dilated. The hemodynamic result is evaluated with direct pressure measurement and angiography of thigh, calf, and foot are performed to check for residual stenosis or distal embolization. Any residual stenosis is redilated.

In the iliac arteries only stenoses, not complete occlusions are treated because of the uncertainty of determining the course of the common and external iliac arteries when obstructed. Should the guide wire or catheter be advanced outside of the peri-atheromatous cleavage plane, uncontrolled hemorrhage can

result. The guide wire and catheter are advanced through a retrograde puncture beyond the stenosis, and proximal and distal intravascular pressures are recorded prior to dilation as previously described. In cases where the guide wire cannot be advanced across the lesion to the distal abdominal aorta, puncture of the contralateral common femoral artery is done and transverse of the stenotic segment attempted from the proximal site. The end point of iliac dilation is obliteration of pressure gradients, rather than resumption of normal morphological configuration. If dilation is successful, no further manipulation is performed and heparin is given intra-arterially. Post-angioplasty protocol includes anticoagulation with Coumadin or salicylates and dipyridamole. The patient is ambulated within 12 hours of the procedure and Doppler segmental pressures are evaluated the following day.

Technical problems have been drastically reduced since the application of the Gruntzig catheter in this procedure. Dotter<sup>2</sup> and others have performed the procedure on an outpatient basis with little more risk than that of aortography alone. Nevertheless, several possible complications still exist. Antegrade puncture of the common femoral artery may be the greatest obstacle to success. The puncture site is made a considerable distance above the inguinal ligament to obtain the appropriate level in the common femoral artery. If the puncture site be at the origin of, or directly into the profunda femoral, large hematomas may result from attempts to manipulate the needle tip into the superficial femoral artery. Occasionally, especially in iliac stenoses, intimal flaps have developed during dilation. Continued manipulation may result in total occlusion. The presence of a flap does not preclude suc-

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cessful dilation as these intimal irregularities have been shown to persist without hemodynamic significance up to 2.5 years post-PTA.<sup>4</sup> Recanalization—the creation of a neolumen in cases of total obstruction—has been limited to limb salvage or relief of pain at rest. The obvious complication is vessel-wall tear. Loss of collateral vessels due to plaque compression adjacent to the orifice of a collateral may also occur. This is often noted with superficial femoral dilations but has been clinically insignificant.<sup>4</sup> If PTA is unsuccessful, potentially there is a decrease in extremity blood flow if the profunda is occluded. The geniculate branches are important for collateral popliteal flow and there is some risk involved in distal dilation procedures. Sexual impotence can arise if the internal iliac arteries are inadvertently occluded in a patient with poor blood flow from the contralateral side or in the case of bilateral occlusions. Clot formation may occur at any dilation site despite the institution of adequate anticoagulation. This has been reported following dissection at the dilation site as a result of guide wire manipulation.<sup>5</sup> Distal embolization of dislodged atheroma has occurred but in most cases has not resulted in clinical symptoms, probably because lysis of the atheroma usually occurs within 12 hours of embolization.

Advantages of PTA include low morbidity and mortality and elimination of the risk of general anesthesia. The average hospital stay is 2½ days with patients being up and about within 12 hours after the procedure. A simple but crippling iliac stenosis can be managed by aortofemoral bypass grafting requiring several hours of anesthesia and surgery with a mortality rate of 5% or more.<sup>6</sup> A patient so treated can expect to be hospitalized at least one week with two-to-three weeks convalescence thereafter, and at considerable expense. Such a patient is also faced with at least a 10% chance of losing sexual potency according to many published surgical reports.<sup>7</sup> PTA can be done in the same patient with local anesthesia, a mortality risk of less than 1%, a shorter convalescence, less pain and at a much lower expense. In addition, several patients in whom iliac artery dilations have been done have actually regained sexual potency.<sup>2</sup> Three years post-dilation patency rates in several published series are greater than 90%.<sup>8</sup> Unlike surgical grafting, dilation can be done repeatedly in the event of restenosis without creating multiple technical difficulties. PTA is often palliative treatment

for the ongoing aging process and does not preclude surgical intervention at a later time. It is not a total substitute for bypass surgery. In cases of multi-segment disease, proximal dilation may render non-surgical candidates suitable for distal bypass. Angioplasty is a possible alternative to amputation in cases of long-standing obstructions, gangrene, and cases of inadequate distal reconstitution. PTA also has a unique advantage over femoropopliteal grafting in that the patients' saphenous veins remain available for possible future coronary bypass procedures.

## CONCLUSION

Any treatment of an ischemic limb represents a local palliative alteration singularly of a progressive, generalized disease. Peripheral arterial disease is rarely seen as isolated from co-existing cardiovascular and cerebrovascular problems. In selected patients, PTA plays a valuable role as an alternative to medical or surgical treatment because of its lack of morbidity and mortality in high-risk patients. Advantages in patient comfort and hospitalization costs are obvious. It does not preclude repeat angioplasty or reconstructive surgery at a later date since established collaterals are not disturbed and formation of new collateral channels is not inhibited.

Two final points should be noted: 1.) Percutaneous transluminal angioplasty should only be performed by experienced angiographers who have participated in the procedure at an institution where it is widely practiced. 2.) Close cooperation of the vascular surgeon, vascular radiologist, the angiographer and the attending clinician is mandatory so that optimal management and results may obtain in each case.

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## News From The Oklahoma State Department of Health

### Pre-Marital Blood Testing for Syphilis Control

The introduction of Senate Bill 96 providing for repeal of Oklahoma's law requiring a premarital blood test has served as an occasion for re-evaluation of this test in the control of syphilis. The law was enacted in 1945 with the twin objectives of preventing the transmission of the disease to an uninfected marital partner and to prevent transmission of syphilis to children born of the marriage.

Reports from the county court clerks to the Oklahoma State Department of Health indicated that 46,509 persons were married in the state in 1980. This number of marriages necessitated 93,018 premarital serological tests for syphilis. In that same year, there were 229 cases of infectious syphilis identified, only three of whom were detected by the premarital test. Only one out of 31,005 premarital tests were positive for infectious disease. Only 1.3% of all the infectious cases were detected through this procedure.

Corresponding figures for 1979 showed four cases found by premarital testing out of 211 infectious cases (1.8%) and for 1978, eight cases out of 207 cases (3.8%).

Of the 93,000 persons required to obtain the blood test in order to be married, 15,275 had the test completed through the Central Laboratory of the OSDH or through one of the four branch laboratories. The cost to the state of performing these tests was \$39,290.

The remaining 77,743 persons, not tested through the state laboratories, used one of the 206 private laboratories authorized to perform this test. A February, 1981 survey of a sample of these labs revealed that charges for the test range from a low of \$6.35 to a high of \$17.00 with an average of \$10.00. Using this average cost, the cost to the public for complying with this statute was \$777,430. The cost of both public and private testing was \$816,630.

When this total is related to the total cases found by these tests in 1980, the cost per case found was \$272,210. This figure is excessive when compared to the cost effectiveness of other methods of detecting infectious syphilis.

At present, in the United States 44 states still require the test although the issue is under study in a number of states. A survey of public health officials in these 44 states found only 13 respondents who favored retention of the test while 31 found the program to be unsatisfactory. □

**COMMUNICABLE DISEASES IN OKLAHOMA FOR JANUARY, 1981**

DISEASE	JANUARY 1981	JANUARY 1980	DECEMBER 1980	TOTAL TO DATE	
				1981	1980
Amebiasis	—	—	—	—	—
Aseptic Meningitis	1	3	1	1	3
Brucellosis	—	—	—	—	—
Encephalitis, Infectious	1	—	1	1	—
Gonorrhea (Use Form ODH-228)	1273	1362	1075	1273	1362
Hepatitis A	14	16	14	14	16
Hepatitis B	6	14	6	6	14
Hepatitis Unspecified	13	11	13	13	11
Malaria	—	—	—	—	—
Measles (Rubeola)	1	1	1	1	1
Meningococcal Infections	—	—	—	—	—
Pertussis	—	2	—	—	2
Rabies (Animal)	11	14	11	11	14
Rocky Mountain Spotted Fever	—	—	—	—	—
Rubella	—	—	—	—	—
Salmonellosis	26	12	26	26	12
Shigellosis	11	10	11	11	10
Syphilis (Use Form ODH 228)	14	7	12	14	7
Tetanus	—	—	—	—	—
Tuberculosis	29	23	29	29	23
Tularemia	—	—	—	—	—
Typhoid Fever	1	1	1	1	1



## OSMA Board Members Review National and State Issues

Federal and state legislative issues and discussion concerning Oklahoma's nurse shortage were among the various issues reviewed by OSMA's Board of Trustees during its quarterly meeting in February.

Perry Lambird, MD, chairman, Council on Governmental Activities, submitted a report reflecting the council's attitude toward a variety of national issues including national health insurance, cost containment, competition and potential solutions to several problems facing the American health care system.

The report included several recommendations: (1) OSMA recommends that the federal government make no further investments in health insurance. OSMA further recommends that the federal government explore avenues for divestiture. (2) OSMA recommends that bold and new departures toward the reduction of existing federal regulations be instituted without delay. (3) OSMA recommends continued support of open and fair competition. (4) OSMA recommends that federal tax and reimbursement mechanisms be restructured in order to provide for cost sharing by patients at the time of delivery of medical services, preferably through an individual patient-controlled savings-insurance system. (5) OSMA recommends that prospective changes in the financing or organization of medical care be the subject of detailed and well-documented experimentation at the level of the individual state or states prior to adoption as national federal policy.

William L. Hughes, MD, chairman of the OSMA Legislative Committee, reported on several medical legislative issues at the state level. His report included Senate Bill 6 (introduced by Senator Phil Watson, Edmond and Representative Helen Cole, Moore) which would allow physicians to prescribe dimethyl sulfoxide (DMSO) without fear of disciplinary action from the Board of Medical Examiners. OSMA is opposed to the original bill and is working with its authors to amend the bill to restrict and control commercialization of DMSO on the open market.

Doctor Hughes updated board members on HB-1058 (introduced by Representative Don

Denman, Oklahoma City and Senator Herschal H. Crow, Altus). The bill would allow optometrists to use any approved ocular pharmaceuticals which are topically applied. In addition, it prohibits opticians, ophthalmology assistants and nurses in physicians' offices from making any tests or measurements of the human eye for diagnostic purposes. OSMA is opposed to this bill. It has been passed by the House and is now in the Senate committee of Human Resources.

Another bill discussed at the board meeting was Senate Bill 12 (introduced by Senator Kenneth Landis, Duncan and Representative Frank Harkin, McAlester). It would mandate that all hospitals provide emergency medical services to victims of rape. The bill has passed the Senate, but has been assigned to two committees for further consideration by the House. OSMA is neutral on this bill, but supports a similar bill, HB-1183 because it's more financially realistic especially for smaller hospitals. OSMA has encouraged the authors of SB-12 to join in their efforts with the authors of HB-1183.

In addition, Dr Hughes' report included a review of SB-136, the Comprehensive Health Education Instruction Act of 1981. The bill would develop a comprehensive health education program for all students attending Oklahoma public schools, from kindergarten through the twelfth grades. OSMA has assumed a neutral position on this bill.

The board also discussed Oklahoma's nurse shortage. The board approved the recommendation that OSMA support two, three or four-year nurse education programs that will increase the number of bedside nurses. The Council on Medical Services will submit this recommendation as a resolution to the OSMA House of Delegates in May.

Other business reviewed by the board included additional reports. □

## Reagan Administration Appoints Former Oklahoman to Health Position

Edward N. Brandt, MD, a native of Oklahoma City, was appointed recently as the assistant secretary of the Federal Health and Human Services Department (HHS) by the Reagan Administration.

According to the *American Medical News* Dr Brandt says one of the primary problems that must be addressed is costs — holding the line on costs while lessening the regulatory burden.

Brandt assumed the civilian government health post early this year. At the time of his appointment a report was also issued which indicated that his new position could be upgraded as HHS under-secretary pending the new administration's decision to reorganize the Health and Human Services Department.

Doctor Brandt received his education in Oklahoma. In 1954 he received a BS in mathematics at the University of Oklahoma. He received an MS in mathematics from Oklahoma State University in 1955 and in 1960, he obtained his medical degree from the University of Oklahoma School of Medicine. From 1961-1962 he did his internship and completed his residency training in Oklahoma City and in 1963 he received a PhD in biostatistics from OU.

Following his internship, Dr Brandt became a faculty member of the OU medical school. He held numerous academic and administrative posts while working at the OU Health Sciences Center. His latest Oklahoma positions include academic appointments as professor and associate professor of several departments for the OU Health Sciences Center (1967-1970) and administrative appointments as the associate dean of the University of Oklahoma School of Medicine and associate director of the OU Health Sciences Center (1968-1970).

Doctor Brandt became noted as a pioneer in the use of computer-aided instruction while in Oklahoma. He was the director of the first national conference on the use of computers in medical education which was conducted at the OU Health Sciences Center. He was also instrumental in developing the OU Medical Research Computer Center and Biostatistical

Unit in the OU Department of Preventive Medicine and Public Health.

Doctor Brandt left Oklahoma in 1970 to become the dean of the Graduate School of the University of Texas Medical Branch (UTMB), Galveston, TX. He later was named executive dean. In 1977, he left that position to become the Vice Chancellor for Health Affairs for the University of Texas Administration, Austin, TX, where he served until his latest appointment as Assistant Secretary of the Health and Human Services Department. □

## OSMA's Auxiliary Day At The Legislature

Approximately 65 ladies gathered at the state capitol in February to participate in the OSMA Auxiliary Day at the Legislature. The event is held annually for OSMA auxiliary members.

The women were addressed by several state politicians. Governor George Nigh highlighted the day by discussing some of the legislative trends which he says will take shape in Oklahoma because of the effect of the new administration. He also said he is glad to be governor of the state now because Oklahoma is experiencing a growth trend in all areas of its economy. Only a few other states can claim having a similar experience.

Other politicians addressing the OSMA auxiliary members were Senator Lee Cate, Norman, and Representative Neal McCaleb, Edmond. Cate focused on the state senate's recent restructuring of its various committees and McCaleb reviewed several current legislative issues including the various proposals involving state tax cuts.

The luncheon, held in the Governor's Conference room, was the setting for William L. Hughes, MD, OSMA legislative chairman, to address the group about the need for auxiliary involvement in the legislative process. Lyle Kelsey, OSMA associate director, discussed the need for auxiliary members to belong to the Oklahoma Medical Political Action Committee (OMPAC).

Afterwards, the ladies were taken on a tour of the State Capitol. □



## Oklahoma's Military Physician Manpower

### Fort Sill Army Post

While some are urging that action be taken to prevent what may become a serious nationwide surplus of physicians, most of the nation's military branches are battling doctor shortages. The hospital staffs at the Fort Sill Army Post, Lawton, and Tinker Air Force Base, Midwest City, comprise most of Oklahoma's active-duty physician manpower and like many military hospitals, they need more doctors.

Raymond L. Coultrip, MD, came to Oklahoma last fall from an army base in Germany to serve as Fort Sill's medical director. He has served as a military physician in the Navy, Air Force and Army for more than 18 years. The greatest portion of that experience has been in the Army. He says he is quite impressed with the quality of army medicine.

In response to the Army's urgent plea for more doctors during the Vietnam War, Dr L. Coultrip left his successful, small-town practice where he had worked for ten years, to join the Army.

"I intended to serve only temporarily," he said.

However, Dr Coultrip decided to remain in the Army because he said he experienced greater job satisfaction. He also said that he prefers the Army's more regular working hours that involve only 45-50-hour weeks instead of 80-hour weeks which were typical of his small-town practice.

Several years ago the Army experienced a doctor shortage which caused a three-year crisis. The Army's most critical point in the crisis occurred in 1978 when only approximately 4,000 physicians were practicing army medicine.

In an effort to resolve the crisis, much attention was focused on the Army's various recruitment programs. Doctor Coultrip credits the Army's Medical scholarship program for the recent increase in the number of Army doctors. He says this particular effort has resulted in an increase per year of nearly 400 medical students who agree to participate in the scholarship program. The Army finances the medical education of the program's participants who are in turn obligated to several years of service in the Army following their medical training. Another major recruitment effort involves the Army's volunteer recruiting pro-

gram. Approximately 250 doctors per year enter the Army through this program. As a result of these recruitment programs and others, the Army has rebuilt its supply of doctors to about 4,600.

Although the recent recruitment efforts have met great success, Dr Coultrip says the Army is still experiencing a physician shortage. He explained that after the recruits' initial obligations have been fulfilled, the Army retains only approximately one third of them.

At the state level, Fort Sill's physician manpower is comprised of nearly 50 Army doctors and eight civilian physicians. A unique aspect of Fort Sill's physician staff is that over one-third of them are family practitioners. According to Dr Coultrip, Fort Sill's current physician staff is able to render adequate health care in most areas to its nearly 22,000 active-duty service men and their families. But in considering all of the people who are eligible for medical services at Fort Sill, the physician staff is not sufficient says Dr Coultrip. He said nearly 60,000 people now qualify for medical services at the army base.

Doctor Coultrip says Fort Sill would need to increase its physician staff and especially its number of primary care doctors in order to provide full health care services to more of those having non-active-duty status. However, Dr Coultrip says an even greater priority must be placed on Fort Sill's need for several specialists including an otolaryngologist, another ophthalmologist and another orthopedist.

Priorities must be established in meeting Fort Sill's physician needs because Reynolds Hospital has limited available space for additional doctors says Dr Coultrip. He said expanded medical facilities are necessary before a significant physician increase would be feasible. According to Dr Coultrip, plans are now being considered for the expansion of Reynold's hospital.

Doctor Coultrip says practicing medicine in the military has many advantages including regular working hours, travel, competitive salaries and good opportunities for continuing medical education.

He also says life as a military physician is not for every doctor.

"Much personal sacrifice is required such as being subjected to moving and national emergencies," he said.

Doctor Coultrip said that during national emergencies some doctors are more suited to



battlefield medicine than others. But in general, he said the basic principles of caring for the sick and wounded are the same as in civilian life.

He acknowledges that the Army has its share of problems, but as far as he is concerned he and many other doctors have done quite well in practicing army medicine.

"I'm still very impressed with the quality of army medicine," he said.

### **Tinker Air Force Base**

Tinker Air Force Base (TAFB) also staffs a significant number of Oklahoma's military physician manpower. Nineteen doctors are practicing at TAFB's hospital and more than 87,000 people now qualify for the services rendered by these doctors. Although this number of physicians is up from what it has been in recent years, Oren R. Smith, MD, medical director at TAFB, says Tinker's physician staff should be increased.

Doctor Smith said the Air Force experienced a great physician loss during the 1970's because of the effect of the Vietnam War. "It seemed as though a lot of people had lost their patriotism for a few years," he said.

Since that time the Air Force has been gaining more doctors. Doctor Smith attributes the increase to several factors including that military doctors now receive a 30-day paid vacation. He also said the increasing number of malpractice suits against private-practice physicians has created an incentive for some doctors to join the Air Force. The government offers financial protection to any military doctor who becomes involved in a malpractice suit. In addition, the Air Force has been making progress through its recruiting efforts especially with its scholarship and volunteer recruiting programs.

But the supply of doctors in the Air Force is still less than desirable. In Oklahoma, Dr Smith said Tinker's physician staff should be increased to 25-30 doctors to meet the full health care needs of all who qualify for medical services at TAFB. He said the most serious shortages are in the areas of orthopedics, otolaryngology, urology and neurology. In addition, Dr Smith said several more primary care physicians are needed.

Doctor Smith explained that Tinker's current physician staff could provide full health

care for TAFB's 6,000 active-duty servicemen and their nearly 17,000 dependents and approximately 1,000 others across the state including recruiters, ROTC instructors and others. But he said the overload is caused by the health care needs of more than 40,000 retirees and their families.

Tinker Air Force Base's medical facility provides additional medical services to the base's industrial workers. Three full-time doctors and two part-time physicians render health care to these civilians. Consequently, the Tinker medical facility has experienced overcrowding with people bunched in hallways waiting for their appointments with physicians. But this problem will soon be resolved.

Eventually the Tinker medical facility will nearly double in size. More than two years ago Tinker Air Force Base initiated a \$9 million building program to expand its hospital by approximately 80,000 square feet. The project was nearly completed when the new facility opened in March. Additional space will be available after the older facility is remodeled.

Part of the remodeling plans involves the addition of an obstetrical unit, a service which was available at Tinker until the later sixties. It was omitted because of limited space. The obstetrical unit will increase Tinker hospital's bed size from 30 to nearly 50 beds.

Tinker hospital is categorized in the third level of the Air Force's four-tier medical system. The largest medical facilities in the Air Force are its medical centers. They are classified in the first level of the four-tier system. The closest of these facilities to TAFB is a 1,000-bed hospital in San Antonio, Texas. Regional hospitals are the second largest category and they usually contain more than 100 beds. The nearest regional air force hospital is in Wichita Falls, Texas. Third-level medical facilities have less than 100 beds and medical facilities in the fourth level have no beds. They are classified as clinics. Patients having access to one of the Air Force's smaller medical facilities are transported to a higher-level medical facility if more advanced care is needed.

Doctor Smith began practicing medicine in the Air Force approximately 17 years ago. After fulfilling a two-year obligation under the Berry plan following his medical training, Dr Smith decided to continue his service as a physician in the Air Force.

For Dr Smith, the advantages of practicing medicine in the Air Force outweigh its disad-



vantages. He said some of the disadvantages for Air Force physicians include not being able to personally manage their medical offices, wearing uniforms, complying with air force standards, less financial rewards, and occasional moving.

On the other hand, he says some primary benefits are that military physicians usually experience more free time than private practitioners. Another advantage involves their freedom to provide full health care to patients without worrying about finances. In addition, he said that in the Air Force many other physicians are always available within its medical system to provide further help if a patient needs more medical attention.

"There is much security in being a physician for the Air Force," he said. □

### **Dedication Ceremony Honors Don H. O'Donoghue**

A dedication ceremony was conducted in March for the Don H. O'Donoghue Rehabilitation Institute, 1122 NE 13th, Oklahoma City by the Oklahoma Commission for Human Services.

The multi-purpose facility, housed in a four-story building, is the only one of its kind in Oklahoma and serves as a model for barrier-free construction accommodating the needs of disabled children and adults.

The rehabilitation institute provides a wide range of medical and rehabilitation services for disabled individuals on an inpatient and outpatient basis. It includes 120 beds.

The facility was named in honor of Don H. O'Donoghue, MD, a well-known orthopedic surgeon in Oklahoma City. O'Donoghue was recognized for his efforts on behalf of the state's crippled children and his leadership in medical education and care of the handicapped.

It is one of several facilities operated by the State of Oklahoma Teaching Hospitals (SOTH) and administered by the Department of Health and Human Services.

Reginald D. Barnes, Tulsa, chairman of the Oklahoma Commission for Human Services presided during the ceremony. Donald B. Halverstadt, MD, SOTH executive chief of staff, and William G. Thurman, MD, O'Donoghue chief of staff, also participated in the ceremony.

Following the ceremony, guided tours were conducted and a buffet luncheon was served. □

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## Education Is the Answer Says Expert

Rational education is the most effective method for physicians in their effort to keep from being "ripped-off," or "conned" by persons addicted to various drugs according to Ronald S. Krug, PhD, of the University of Oklahoma Medical School's Department of Psychiatry.

Substance abuse has become a serious nationwide and statewide problem and part of the problem involves addicted persons who manipulate doctors for drugs via various schemes. Doctor Krug regards such conning efforts as a health care problem and along with other forms of substance abuse should be approached through education for medical professionals.

He adds that the problem of substance abuse is a health care problem exclusively and that it should not become a legal matter. "Punitive legislation could create additional problems," he said.

The educational opportunities for the practicing physician in substance abuse are somewhat limited but a number of experts in the field are available — Dr Krug is one medical educator in the nation who has acquired the type of expertise in substance abuse necessary for instructing medical professionals.

His interest in substance abuse originated while he was practicing as a psychologist in the Navy more than ten years ago. Many of his clients were individuals who had served in Southeast Asia where they had become addicted to drugs.

"At that time, nobody really knew how to treat drug addicts," he said. Doctor Krug said his only option for learning how to help his clients involved self-instruction and what he calls the "school of hard knocks," — trying to treat, sometimes failing and sometimes succeeding.

Eventually, Dr Krug's efforts enabled him to organize various rehabilitation programs. In 1970 he came to Oklahoma and established the state's first rehabilitation program for persons addicted to various chemicals. Later, he developed Oklahoma's first methadone programs. In 1974, Dr Krug was appointed by the

National Institute on Alcohol Abuse and Alcoholism as a Career Teacher for the health sciences center. During his tenure he has been lecturing and developing education programs in substance abuse for several health care colleges including the College of Medicine.

Doctor Krug's educational program in substance abuse for medical students is a subdivision of the College of Medicine's curriculum course, "Human Behavior I." He explained that in addition to helping students understand addiction it provides an understanding of several techniques that are used by addicted persons to obtain drugs from doctors. Krug said one method involves obtaining drugs by faking symptoms of extremely painful disorders that are difficult to diagnose in emergency room situations. An example of such disorders is kidney stones. Another method involves addicted persons who contact physicians for drug prescriptions under the pretense that they are out-of-town travelers who have left their medication behind or lost it and are in need of another prescription. These persons frequently provide the name and phone number of their "physician" who is a confederate and not their physician. In addition, Krug addresses common-sense practices that doctors should implement such as keeping prescription pads out-of-sight and in a controlled location. The course also emphasizes the importance of cooperation among physicians and pharmacists. Pharmacists have proven to be helpful to doctors by recognizing forged signatures for prescriptions or prescriptions for medications which the particular physician doesn't characteristically use. Medical students will also be taught a variety of good prescription-writing practices including prescribing small quantities of the drugs that are most sought by addicted persons and how to assist persons in withdrawing from prescribed drugs once addiction has occurred.

Education on substance abuse is available for medical students in Oklahoma, but Dr Krug says he is unaware of any similar educational opportunities in this area for practicing physicians. Education for practicing physicians is important, he said, because no patterns have been established which indicate that more experienced physicians are less susceptible to the conning efforts of addicted persons, most of whom are not street addicts. He recommends continuing medical education pro-



grams (CME) that teach doctors how to recognize the manipulative efforts of addicted persons in the physicians' practice. He also advises that CME programs be made available which address both substance abuse in all areas including drug and alcohol abuse, and describe how to understand, detect and treat such problems. According to Dr Krug, proper rehabilitation of substance abusers experiences a success rate of more than 65%.

Doctor Krug suggests other information that could help physicians when they are confronted with problems involving substance abuse. He says that doctors should know that the State of Oklahoma Divisions of Alcoholism and Drug Abuse provides services to doctors. Such services include acting as a credentialing agency and providing information services for rehabilitation treatment centers. The divisions will also assist in the development of educational programs and continuing medical education courses.

Doctor Krug adds that doctors can also benefit from credible information for self-instruction in substance abuse. He warned that much information in what he termed the "popular press," is inaccurate and based upon unsubstantiated sensationalist data. However, he says credible information can be obtained from the Clearing Houses of the National Institute of Drug Abuse (NIDA) and the National Institute on Alcohol Abuse and Alcoholism (NIAAA). To be placed on the mailing lists of these organizations physicians should write NIDA, 5600 Fishers Lane, Rockville, MD, 20857 and NIAAA, P.O. Box 2345, Rockville, MD, 20857. □

### **Colorado Study Supports AMA Position on Excess Surgery**

According to a Colorado study, the claim that many surgical procedures are performed unnecessarily simply is not true. The *Journal of the American Medical Association* has cited a Colorado study supporting AMA's contention on this matter at the state level.

A common criticism of American medicine involves whether many recommended surgical procedures are needed. But an AMA report has said that few measurements are available to determine the validity of such criticism.

The Colorado Foundation for Medical Care

Professional Standards Review Organization has conducted a study to determine if surgery in the state was being performed unnecessarily. But it concluded that few unjustified operations had been performed.

The study's data were collected on 13 of the most commonly performed surgical procedures. To collect data for the study, nurse reviewers gathered information on 4,850 patients in Colorado hospitals. The information indicated that most of the procedures performed on these patients were in accordance with the standard indications.

Of the 201 appendectomies performed 100% met one or more of the indications for surgery; of the 1,768 cases of cataract removals, 99.3% were ordered in accordance to the standard indications; more than 97% of the gallbladder operations met at least one of the indications required for surgery and nearly 94% of the hysterectomies were considered justified by findings in the study. However, the study also showed that operations to remove tonsils and adenoids should be reduced. Still only 10 percent of these operations did not meet the standard requirements for surgery. □

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## IN MEMORIAM

## 1980

<i>Paul C. Gallaher, MD</i>	<i>April 20</i>
<i>Ennis M. Gullatt, MD</i>	<i>April 26</i>
<i>John E. Highland, MD</i>	<i>April 28</i>
<i>H. Violet Sturgeon Minton, MD</i>	<i>April 29</i>
<i>Elton W. LeHew, MD</i>	<i>May 3</i>
<i>C. W. Arrendell, MD</i>	<i>May 6</i>
<i>Edward A. Abernethy, MD</i>	<i>May 9</i>
<i>William F. Thomas, Jr., MD</i>	<i>May 17</i>
<i>Robert C. Lawson, MD</i>	<i>May 17</i>
<i>Robert L. Lembke, MD</i>	<i>June</i>
<i>Joseph Fulcher, MD</i>	<i>July 2</i>
<i>Emmett O. Martin, MD</i>	<i>July 15</i>
<i>James R. Colvert, MD</i>	<i>July 22</i>
<i>Thomas J. Hardman, MD</i>	<i>July 24</i>
<i>Kelly M. West, MD</i>	<i>July 28</i>
<i>Tom S. Gafford, MD</i>	<i>August 4</i>
<i>Joseph J. Swan, MD</i>	<i>August 25</i>
<i>Milton J. Serwer, MD</i>	<i>August 28</i>
<i>Henry B. Jenkins, MD</i>	<i>August 28</i>
<i>I. F. Stephenson, MD</i>	<i>September 7</i>
<i>Emory E. Beechwood, MD</i>	<i>September 9</i>
<i>Paul B. Champlin, MD</i>	<i>September 17</i>
<i>Bernard Brock, MD</i>	<i>September 25</i>
<i>Lee Pullen, MD</i>	<i>October 6</i>
<i>Walter E. Sethney, MD</i>	<i>October 14</i>
<i>Ralph R. Nepveaux, MD</i>	<i>October 19</i>
<i>John M. Parrish, MD</i>	<i>November 8</i>
<i>Franklin D. Sinclair, MD</i>	<i>November 16</i>
<i>Henry K. Speed, MD</i>	<i>November 17</i>
<i>Joel T. Woodburn, MD</i>	<i>November 18</i>
<i>Frank R. Viereg, MD</i>	<i>December 6</i>
<i>Robert C. Bowers, MD</i>	<i>December 31</i>

## 1981

<i>Athol L. Frew, Jr., DDS, MD</i>	<i>January 1</i>
<i>William R. Morris, MD</i>	<i>January 17</i>
<i>Geoffrey Kelham, MD</i>	<i>January 27</i>
<i>Charles G. Stuard, MD</i>	<i>January 30</i>
<i>Fred S. Watson, MD</i>	<i>February 3</i>
<i>Robert J. Terrill, MD</i>	<i>February 16</i>
<i>David J. Tomko, MD</i>	<i>March 4</i>
<i>Eugene F. Lester, Jr., MD</i>	<i>March 16</i>

EUGENE F. LESTER, JR., MD  
1915-1981

Oklahoma City general surgeon, Eugene F. Lester, Jr., MD, died March 16, 1981. Doctor Lester was past Secretary-Treasurer of the Oklahoma State Board of Medical Examiners for many years. Born in Wilburton, OK, Dr Lester was graduated from the University of Oklahoma College of Medicine in 1941. His practice was established in Oklahoma City in 1947. He was a member of the Oklahoma Surgical Society and the Oklahoma City Clinical Society.

ROBERT J. TERRILL, MD  
1921-1981

Robert J. Terrill, MD, retired, Enid internist, died in Elk City February 16, 1981. Doctor Terrill, 59, was graduated from the University of Texas Medical School, Dallas in 1945. He had practiced for a brief time in Hennessey prior to continuing his practice in Enid in 1951, retiring in 1978. Doctor Terrill was a Life Member of the Oklahoma State Medical Association.

GEOFFREY KELHAM, MD  
1914-1981

Pryor radiologist, Geoffrey Kelham, MD, died January 27. Doctor Kelham had established his practice in Pryor in 1975. A native of London, England, he was graduated from Cambridge University Medical School in 1940. Following several years of practice in England, Dr Kelham spent four years in Nairobi and Nakuru, Kenya. He returned to England and in 1969 established his practice in Dallas before moving to Pryor. Doctor Kelham was certified by the American Board of Radiology and held memberships in the Royal College of Radiology in England and the American College of Radiology.



DAVID J. TOMKO, MD  
1943-1981

David J. Tomko, MD, 37, Muskogee internist, died March 4. A native of Virginia, Doctor Tomko was graduated from the Medical College of Virginia Health Sciences Division of Virginia Commonwealth University in 1970. Following his residency training, Dr Tomko established his practice at the Veterans Administration Hospital in Muskogee. He was an assistant professor of medicine at the University of Oklahoma Health Sciences Center.

FRED S. WATSON MD  
1891-1981

Fred S. Watson, MD, an Okmulgee physician since 1919, died February 3. A native of Kirby, Arkansas, Dr Watson was graduated from the University of Arkansas School of Medicine in 1915. He was a member of the American College of Surgeons and a Life Member of the Oklahoma State Medical Association. Doctor Watson was the father of David Watson, MD, a practicing pediatrician in Muskogee. □

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## Health Sciences Center To Sponsor Colloquium

Ten guest lecturers will address the Congenital Heart Disease colloquium to be sponsored by the University of Oklahoma Health Sciences Center on Thursday and Friday, May 28-29 at Children's Memorial Hospital, Oklahoma City.

The speakers will focus on selected problems of congenital heart disease in a program designed for medical professionals who have a background in the subject.

The colloquium will offer 11 credit hours of continuing medical education for Category I of the Physicians' Recognition Award of the American Medical Association. In addition, the program will meet criteria for 11 credit hours of continuing medical education for the Accreditation Council on Continuing Medical Education.

On Thursday evening a dinner and social hour will be held for registrants at the Beacon Club which is within walking distance of the Sheraton-Century Center. Tickets for the dinner are \$20 each and they can be purchased for spouses and guests who wish to attend.

Transportation services will also be available for the registrants to carry them to-and-from the conference's location-site and the Sheraton-Century Center.

Out-of-town registrants can make reservations at the Sheraton-Century Hotel, Broadway and Main, Oklahoma City, 73102, before **May 13**. To make reservations write or call the hotel at 405 235-2780.

The registration fee for doctors is \$150 which includes continental breakfasts, luncheons, coffees, transportation, instruction and course syllabus. Fellows and residents from non-Oklahoma hospitals and nurses can register for \$75.

For further information contact one of the three co-chairmen. Geoffrey P. Altshuler, MD, 405 271-5005; Ronald C. Elkins, MD, 405 271-5789; or Webb M. Thompson, MD, 405 271-4411. □

## Paintings Reveal Progression of Arthritis

Some earlier painters could have changed their painting style because of disease. Several doctors at the University of Brussels and George E. Erhlich, MD, Hahnemann Medical College and Hospital, Philadelphia, PA, have theorized that this is what Peter Paul Rubens did.

Rubens lived from 1577 to 1640 and was a noted painter. Doctor Ehrlich and the doctors at Brussels University conducted a study of

Rubens' paintings during a recent international exhibition. Ehrlich was cited in the *Journal of the American Medical Association* for having said that through the years Rubens' paintings showed the progression of rheumatoid arthritis in the twisted fingers and swollen wrists of the subjects in his paintings. Dr Ehrlich said Rubens' 1609 painting, which is entitled *St. Matthew*, features a swelling of the joints of two fingers. Two other paintings, *The Drunken Sleeping Satyr* (1610) and *Suzanna and the Elders* (1614) also show swollen fingers and a swollen wrist in each painting. Doctor Ehrlich suggests that Rubens used his hands as models in the paintings during the progression of his own arthritis.

If Rubens did use his hands as models in his paintings, rheumatoid arthritis existed in man at least 200 years earlier than had been previously thought. But this isn't the earliest indication of arthritis. Osteoarthritis has been traced even earlier in the remains of dinosaurs and ancient man. □

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## Calendar of Events

### April 17-18

The Department of Continuing Medical Education of Presbyterian Hospital, Oklahoma City, OK, will sponsor a program entitled Ear, Nose and Throat Problems in Children on April 17 and 18 at the Sheraton Century-Center Hotel, Oklahoma City. For additional information contact Hal B. Vorse, MD, at 271-6447.

### April 23-25

The 77th Congress on Medical Education and Licensure will be held on Thursday through Saturday, April 23-25 at the Palmer House in Chicago. The conference theme will be public interest in medicine and in medical education. A panel discussion on public interest in professionalism will be featured during the program. For inquiries contact Frank Chappell at 312 751-6606.

### May 7-10

The 1981 OSMA Annual Meeting will be held at Shangri-La lodge on Thursday through Sunday, May 7-10 in Afton, Oklahoma. (See March issue of *Oklahoma State Medical Association Journal* for details.)

### May 9

Physicians and medical professionals are invited to attend the Fourth Annual Oklahoma Sudden Infant Death Syndrome Awareness Day on Saturday, May 9. The Oklahoma State Department of Health is sponsoring the event which will be held in the Center for Continuing Education Room, Ben H. Nicholson Tower, Oklahoma Children's Memorial Hospital, from 8:00 AM to 4:00 PM. Abraham Bergman, MD, vice-president of the National Infant Death Syndrome Association and Ruth Yauger, assistant professor of nursing at the University of Rochester, Rochester, NY, will address the sessions. The registration fee is \$12. For further information call 405 271-4471.

### May 15-16

Developmental Pediatrics-Current Concepts in Infancy and Early Childhood is a continuing education program to be sponsored by the State of Oklahoma Teaching Hospitals (SOTH). It will be held on Friday through Saturday, May 15-16 in the Center for Continuing Education room, Ben H. Nicholson Tower—fifth floor, Ok-



Oklahoma Children's Memorial Hospital, 940 NE 13th, Box 26307, Oklahoma City, OK 73126. For more information either write or call 405 271-5663.

#### **May 28-29**

The Congenital Heart Disease Colloquium will be conducted Tuesday through Wednesday, May 28-29 at the Children's Memorial Hospital, Oklahoma City, OK. The program will focus on selected problems of congenital heart disease. It is designed for persons who have a background in the subject. Eleven credit hours of Category I will be offered. See page 119 for further information.

#### **June 6**

Second Annual Current Concepts in Children's Medicine and Surgery will be held on Saturday, June 6. The State of Oklahoma Teaching Hospitals is sponsoring the program which will be conducted in the Center for Continuing Education at the Oklahoma Children's Memorial Hospital, 940 NE 13th, Box 26307, Oklahoma City, OK 73126. For more information either write or call 405 271-5663. □

### **Kidney Dialysis Treatment Could Be Rationed**

Health care professionals throughout the country are cutting a variety of corners in an effort to reduce escalating health care costs. The decision to cut some of these corners involves making difficult choices such as determining whether a selective process will be re-established for utilizing kidney dialysis treatment.

In the early years of kidney dialysis treatment, local communities organized committees to select which patients would benefit from kidney dialysis because limited funds were available for this procedure. Eventually Medicare provided funds to offer non-selective use of kidney dialysis. However, operating costs for the use of kidney dialysis and the growing number of patients utilizing such treatment has snowballed. Health care professionals are faced with limited funds and must once again determine whether to cut back the number of patients who receive dialysis.

According to an article in a recent *Journal of the American Medical Association* (JAMA) more than 50,000 patients are currently being kept alive through kidney dialysis. The cost of this treatment is exceeding \$1 billion per year or an average of \$30,000 per person. Doctor Roger W. Evans, Health and Population Study Center, Bettelle Human Affairs Research Center says this figure will probably increase to more than \$3 billion per year by 1984.

Evans was also cited in the article for having said that the patient population is much older now than in the early 1970's when kidney dialysis was first made available. He said many of the patients who are competing for health care dollars to pay for kidney dialysis are also users of other medical services as well. He suggested that their chances of rehabilitation are slim and that the earlier organized local committees probably would have denied them dialysis. □

### **International Physicians Receive \$100,000 Grant**

The American College of International Physicians (ACIP) has become the recipient of a \$100,000 grant from the Educational Commission for Foreign Medical Graduates (ECFMG) in order to conduct several FMG National Leadership Conferences.

The ECFMG Board of Trustees approved the grant in accordance with its Program of Grants in Aid for projects to help international doctors in the United States. The conferences will be directed toward developing, improving, and providing the international physicians with opportunities to participate in the political process of organized American Medicine, public organizations and institutions and public offices.

Recently, the American Medical Association's House of Delegates approved a policy allowing FMG representation on its various councils, committees and policy making bodies. The proposed FMG conferences will equip international doctors for such responsibilities. The conferences will also help identify which FMG's are interested in participating in the decision and policy making process.

The ACIP plans to conduct at least five conferences in major cities throughout the United States. It will obtain assistance in developing the FMG conferences from a national coordinating committee to be composed of leaders from prominent ethnic national FMG organizations. However, the ACIP is also interested in help from others. In addition, ACIP is requesting all officers and members of ethnic FMG organizations to offer suggestions, make requests, or communicate any other information that will help in the planning of the conferences. To do so, contact the ACIP executive director at 3030 Lake Avenue, Fort Wayne, Indiana 46805, 219 424-7414. □

## Doctor Sews Beads on Patient

A surgeon in Winnipeg, Canada is currently under investigation for sewing decorative beads on an Indian woman following exploratory surgery.

The doctor said he intended for the beads to cheer the woman up following her surgery. Instead, however, the Indian said she suffered much shame when other medical professionals laughed at her during X-rays.

The woman's husband said the couple will seek up to \$10,000 in compensation for his wife's humiliation. Although he said he could forgive the incident, he says the \$10,000, if awarded, should help prevent it from occurring again. □

## Book Reviews

**HOWARD FLOREY, *The Making of a Great Scientist*.** By Gwyn MacFarland. Oxford, England: Oxford University Press, 1979. 396 pages, frontpiece, ISBN 0 19 858161 0. \$18.95.

This is an excellent book. Dr Gwyn MacFarland, Emeritus Professor of Clinical Pathology at Oxford University, first met Florey in 1938 when Florey came to the British Postgraduate Medical School at London to give a lecture. MacFarland, then working at the Wellcome Physiological Research Laboratories, then next met Florey again two years later when Florey came to Wellcome to try to persuade the director to take up the large scale production of a mold that most of the Wellcome staff had never heard of but which Florey seemed sure would prove to be of paramount importance. This, of course was penicillin. During the next twenty years MacFarland came to know Florey well and to recognize his stature as a scientist.

The book begins with an historical Introduction in which the author recounts briefly the lives and accomplishments of Koch, Lister and Pasteur and gives his opinion why he believes Florey deserves to be ranked with these pioneers. He then provides an interesting recount of Florey's earlier days in Adelaide, Australia, his coming to Oxford as a Rhodes

Scholar, his participation in the Oxford Arctic Expedition in 1924, and his first visit to America where he spent time in various laboratories in Philadelphia, Baltimore, Chicago, and in Ottawa and Montreal, Canada.

Florey's name is of course closely associated with the miraculous drug, penicillin. How penicillin was discovered and introduced into clinical use generally is well known. Yet virtually every point in the popular version requires modification based on information in this book. Neither his published papers nor his experimental notebooks give direct evidence of the line of thought that led him to work on lysozyme, but his decision to do so was, eventually, to have tremendous consequences. The first mention occurs in Florey's notebooks dated 17 January 1929.

Two examples in the penicillin story which require qualification can be cited. The clear zone, which Fleming noted around some mold on a plate culture of staphylococci, could not have been due to growth of the contaminant occurring after the appearance of the bacterial colonies. It resulted from inhibition—not lysis—and could only have been produced by a highly unusual sequence, probably relating to the prevailing weather, so that the fungus grew before the bacteria began to multiply.



Nor, it seems, was the actual contamination of this plate, by a very uncommon strain of penicillium, entirely fortuitous—a mycologist was using the room immediately below Fleming's laboratory. The phenomenon remained of only academic interest for ten years. MacFarland points out that Fleming was not alone in failing to realize the therapeutic significance of his observation. Topley and Al-mroth Wright, the two foremost microbiologists of the day, knew what Fleming had seen, but, like him, did not appreciate its clinical potential. This biography underlines what has been acknowledged by the medical profession: that in the context of penicillin, several names should be coupled with that of Fleming, and that Howard Florey's name deserves to be amongst the leaders of the group.

The book is, however much more than an account of the immediate background to the penicillin story. It takes us step-by-step, through Florey's interesting career. After his American visit, Florey returned to England, taking a position at the London Hospital. It was there that he first had contact with Sir Charles Sherrington, the renowned neurophysiologist, who was to have a profound influence on him. Here, he also experienced his first battle between the department of pathology and the clinical departments, and made friends with certain persons such as Paul Fildes and others who were to collaborate with him in future years. On October 19, 1926 Florey was married, in London, to a physician from Adelaide, with whom he had carried on a long correspondence after leaving Australia.

Florey was not happy at the London Hospital and whenever possible he slipped away to work for a few days at Cambridge or Oxford. In January, 1927 he was appointed to a special lectureship in pathology at Cambridge in the department of Professor Dean, one of the most influential men in British academic pathology.

In March, 1932 Florey took up his new appointment at the University of Sheffield. This appointment was important to him for several reasons including the fact that there he first came in contact with Edward Mellanby, professor of pharmacology, who later became head of the Medical Research Council and thus greatly influenced Florey's career. This also gave him the first opportunity to develop his own department.

However on May 1, 1935 Florey was appointed professor of pathology at Oxford. It was

at Oxford that he assembled the famous team of Chain, Heatley, Abraham, Fletcher, Gardner, Jennings, and others, which successfully purified penicillin, produced it in quantity, and first used it effectively in treating patients.

The author skillfully ties in the influence of World War II on medical research and the development of penicillin. He points out that one of the German interests that worried Florey most involved Hitler's personal physician, the notorious charlatan, Theodor Morell, who claimed to be the original discoverer of penicillin. But his standing in his own profession was so abysmally low that such claims retarded any serious work on his "discovery" in Germany.

MacFarland describes well the efforts in the United States by the Florey team to develop large scale production of penicillin through contacts with the federal government and with private industry. He devotes a full chapter to the activities and publicity surrounding Alexander Fleming after penicillin was introduced for clinical use by the Florey group. Some may interpret certain of the author's remarks as "anti-Fleming." Curiously enough, attempts to use penicillin were being made in 1932, not in Fleming's laboratory, but in Florey's department at Sheffield. Doctor C. G. Paine, the pathologist at the Royal Infirmary, who had been a student at St Mary's, had a culture of Fleming's penicillium and proceeded to grow it and harvest the "mold juice."

Professor MacFarland shows how the first human trials, and all that followed, were the logical, almost predictable, outcome of a lifetime's work. The narrative of Florey's life is interspersed with fascinating word pictures of other men and women whose names (Cairns, Carlton, Dale, Colebrook, Kettle, Witts and others), will endure but who, as personalities, might otherwise have been forgotten. He also gives the reader a glimpse of a little-known world of academic disputes and warfare, in which individual careers and meritorious projects were sometimes jeopardized by the composition of a committee or other seemingly trivial occurrences.

The author describes more than the scientific train of events. He describes concisely and pertinently Florey's characteristics, the relationships with Jim Kent, his loyal technician, and with other laboratory helpers. Although Florey is best known for his studies with penicillin, he was basically a physiologist. In Chapter 7 MacFarland discusses Florey's wide



range of research interests beginning with his interests in mucus, gastrointestinal physiology, tetanus, the lymphatics and others. MacFarland also relates well Florey's marital and family life. His relations with his first wife progressively deteriorated and, although estranged, they were not divorced. She suffered many illnesses but was able to participate in the clinical trials of penicillin. She died on October 10, 1966. In June, 1967 Florey married Dr Margaret Jennings who had been his colleague and collaborator at the School of Pathology for some thirty years.

MacFarland intersperses the narrative with bits of humor such as the description of his wife's driving, Jim Kent's episode with the professor's dog, the confrontation of one of his colleagues, A. Q. Wells, and the university grants committee and Pansy Wright's episode with the Medical Research Council.

In 1945 the Nobel prize for physiology and medicine was divided between Fleming, Chain, and Florey; in 1944 Florey was knighted; in 1962 he accepted the provostship of the Queen's College at Oxford, was made president of the Royal Society in 1960 and in 1965 was made a baron. He died in 1968.

The book is well done and put together well. Although MacFarland is obviously a great admirer of Florey's, he contains his enthusiasm and does not hesitate to point out Florey's shortcomings. There are few if any typographical errors encountered by this reviewer. The one complaint about the format is that the references at the end of each chapter are listed at the back of the book and the chapters are not titled; thus, one has to flip back and forth in order to correlate the text with the reference list. This annoyance is far overshadowed by the overall excellence of this book. *Harris D. Riley, Jr., MD*

**ZOO VET, Adventures of a Wild Animal Doctor.** By David Taylor. Philadelphia: J. B. Lipincott Co., 1977, 255 pages, \$8.95.

This is the story of Dr David Taylor, a veterinarian who specializes exclusively in the

diagnosis and treatment of diseases of wild animals. Taylor was born in Scotland and was graduated from Glasgow University. He decided to remain in Glasgow in order to take a course in comparative pathology. This decision further stimulated and prepared him for the study of disease in exotic animals. However, he was able to remain there for only one year; he then returned to his home town of Rochdale to join a general practice dealing with a wide range of large and small animals. His office was responsible for care of the animals at the Belle Vue Zoo in Manchester. His interest in the animals progressively increased until, after further study, he decided to limit himself to such work.

As a free lance zoo veterinarian, he has "covered" the world from emergency to crisis to disaster. He logs over 200,000 miles of travel each year to zoos, circuses and marinelands. He takes the reader with him on some of these exotic "grand rounds." Along the way he introduces a host of personalities including Cuddles, the killer whale; JoJo, the overly affectionate gorilla; Mary, the elephant with the toothache; and Henry, the motorcycling chimp.

Although wild animals are afflicted with many of the same ailments as humans, their treatment often involves special problems. Taylor recounts many of these problems — how to anesthetize a giraffe without having the animal injure its delicate neck in a fall, performing a caesarean section for a zebra, and administering an enema to a vicious Siberian tiger, among others.

The book is interesting, humorous and unusual. It will please readers who have a feeling for animals and wildlife. *Harris D. Riley, Jr., MD*

**ANTIBIOTIC and CHEMOTHERAPY.** By Lawrence P. Garrod, Harold P. Lambert, Francis O'Grady, with Chapters on Laboratory Methods by Pamela M. Waterworth. Fourth Edition. Edinburgh, London and New York: Churchill Livingstone, 1978, 546 pages.

When I reviewed the second edition of this book in 1970 (*J. Okla. State Med. Assn.* **63**:137, 1970), I stated: "This relatively small book of 462 pages is a rich source of information. It will be valuable to a wide range of individuals con-



cerned with infectious diseases." This prediction has proved to be correct. The book also has gone through a third edition which was rapidly sold out, and this current edition has been enlarged to more than 500 pages and this, the fourth edition, brings certain changes. A third author, Professor Harold P. Lambert, is introduced to the readers.

As before, the book is divided into two main sections. The first section deals with specific antimicrobial agents, their pharmacology, and complications associated with their use. The second portion is concerned with general principles of antibacterial therapy and management of infections of various organ systems. Other changes in the fourth edition include a separate chapter dealing with modes of action of antimicrobial agents and a considerable amount of new material on synthetic drugs, including the penicillins and antifungal agents. Almost every chapter has been revised and brought up-to-date. The new edition contains 546 pages.

*Antibiotic and Chemotherapy* remains an excellent source for all physicians and laboratory workers concerned with infectious diseases. *Harris D. Riley, Jr., MD*

**Clinical Concepts of Infectious Diseases,** 2nd edition, Edited by Leighton E. Cluff and Joseph E. Johnson, III. 534 pages, The Williams and Wilkins Company, Baltimore, 1978. Price \$22.50.

This volume is an updated, expanded follow-up of the first edition which appeared in 1972. It contains a collection of essays emphasizing certain concepts of infectious diseases. This edition focuses broadly on various aspects of host resistance which have important clinical implications.

The editors devote the first section containing eight chapters to basic defenses of the host, microbial virulence factors, and the interplay of the two that leads to clinically apparent disease. A revised chapter on clinical epidemiology emphasizes and explains this approach to disease states for the non-epidemiologist.

The second section, "General Problems of Infectious Diseases," contains six chapters and deals with the manifestations by which various infectious diseases may be suspected from a clinical viewpoint, including fever patterns, septic shock, hematologic and dermatologic manifestations of infections. The final chapter

is a particularly useful one which reviews the various factors which influence recovery from infection.

The third section of 13 chapters covers selected problems in clinical infectious diseases. These include viral respiratory infection including influenza, other acute and chronic pulmonary infections, wound and other opportunistic infections, hepatitis, meningitis, endocarditis and urinary tract infections. New additions to this section include chapters on infectious diarrheas and venereal diseases.

Antimicrobial therapy is approached by outlining certain categories of questions which should be asked by the physician confronted with a patient who should receive such treatment. Included are discussions on use of selected antibiotics, antiviral and antifungal agents, as well as untoward consequences of their use. There are also chapters on isolation procedures for the infected patient and on immunization and its important role in the prevention of infectious diseases.

The last section contains a useful tabulation of diseases by site as well as a chapter of selected references on various infections.

Although there is variation in quality between the essays, in general they are well done and present sound approaches to the patient with an infectious disease. *Harris D. Riley, Jr., MD*

**Health and Disease in Tribal Societies.** (Ciba Foundation Symposium 49, London, September 28-30, 1976), 344 pages with illustrations. New York: Elsevier Company, 1977. Price \$29.00

"What are the responsibilities of western industrialized societies towards the remaining tribal communities of the world? How can the desire to contact such societies and study them be combined with the ethical imperative to preserve tribal people and improve rather than disrupt their physical and mental well-being? Since tribal people **will** almost inevitably be contacted, often exploitively, can doctors and scientists alleviate the harmful effects of contact—disease, apathy, social breakdown, and population decline?"

In 1976 the Ciba Foundation sponsored a symposium in which an unusual mixture of 26 scientific experts — physicians, epidemiologists, geneticists, anthropologists,

and others from all parts of the world — met and discussed the above and other questions. This volume includes the 14 papers presented, together with the active discussions that followed each presentation. It is well known that many health problems arise when primitive isolated groups first have contact with modern civilization. In recent years anthropologists, public health workers, and others have tried unsuccessfully to protect tribal groups from the injurious effects of such contacts. They have also tried to learn as much as possible from the study of these people and made some effort to determine the best way of assimilating them into our society.

In his introduction, the chairman, Hugh Jones of London, points out that apart from the ethics of assisting primitive man, much is to be gained by studying them. Perhaps we might learn something that would help in solving some of our own contemporary problems of overpopulation, violence, war, and such disorders as arteriosclerosis.

Polunin of the University of Singapore describes in detail various characteristics of different tribal peoples. Ohlman of the World Health Organization emphasizes that the first contact with the tribal society is probably the most important event that takes place in any exploration. Lozoff and Brittenham of Case-Western Reserve University discussed field methods for the assessment of health and disease in pre-agricultural societies. Carleton Gajdusek, in a fascinating chapter, discussed two newly identified foci of usually rare diseases occurring in high incidence in isolated primitive populations of West New Guinea which demand urgently intensive investigation. These are (1) amyotrophic lateral sclerosis, Parkinsonism, and dementia syndromes in a small population in the Lowlands, and (2) an epidemic of burns from cysticercosis-induced

epilepsy as a result of the introduction of *Taenia sodium* into the pigs in the populations of the Central Highlands. A third example is a focus of male pseudohermaphroditism with ambiguity of the external genitalia in a population of the Highlands of Papua New Guinea. He reviews various medical and physiological phenomena that may be studied after first contact.

Cokburn provides an interesting and provocative chapter on the evolution of infectious disease. Francis Black and his colleagues review their fascinating experience with measles as a fundamental example of the epidemiology of an infectious disease and Tyrrell describes certain aspects of the occurrence of infection in isolated communities.

Closer to home, James V. Neel describes health and disease in uncultured Amerindian populations. Neel suggests that the deterioration in the health status of certain tribes after contact with outsiders may result from "unusual epidemiological characteristics" rather than from natural hypersusceptibility to new disease agents. Those experienced with North American Indian problems will find many counterparts. An important chapter is entitled "Beliefs and Behavior in Disease" by J. A. Louis of the University of Cambridge. In the final chapter, some basic principles of medical care are suggested for those helping traditional communities to build up health service appropriate to their needs, social organization, and beliefs.

Certain things are emphasized: (1) these isolated societies do not necessarily suffer ill-health, so long as they remain isolated, and (2) after isolation has been disrupted, various health problems may rather quickly develop.

This volume does not answer all of the questions posed by Hugh-Jones. However, it should be read by all interested in the complex interplay of cultural society, environment, politics and health.

Harris D. Riley, Jr., MD

## OSMA 1981 ANNUAL MEETING SHANGRI-LA LODGE ON GRAND LAKE

Reservations must be made early, directly to the lodge.

May 7-10, 1981

Afton, Oklahoma



## Our Roots

Organized medicine had its beginning in Oklahoma even before statehood with the formation of the Indian Territory Medical Association in 1881 and the Oklahoma Territorial Medical Association in 1893. Seventy-five years ago on May 7, 1906, the doctors of the two territorial medical associations decided to join together and form a single medical organization . . . the Oklahoma State Medical Association.

Territorial doctors became eager to consolidate their separate associations into one professional medical organization once they anticipated statehood for Oklahoma. Early physicians wanted a strong, single, professional organization that could defend the practice of medicine amid statehood changes such as legislative efforts to regulate the practice of medicine.

Steps to unite the territorial medical associations began when counselors from Oklahoma Territory met with a special committee of the Indian Territory Medical Association on July 12, 1905 and adopted five resolutions.

The first resolution resolved that both associations would conduct their 1906 annual meetings in joint-session in order to reorganize as one body. It also designated Oklahoma City as the location for the 1906 meeting. The other resolutions further specified the convening of a special legislative committee. This legislative

committee was directed to devise regulations for the practice of medicine in the soon-to-be state of Oklahoma which would be submitted to the House of Delegates for approval. The legislative committee was comprised of representatives from both territories. Another resolution specified who would preside over the various meetings during the jointly-conducted annual meeting. Still another resolution called for the scientific program to be conducted by the leaders of both territorial medical associations.

On May 7, 1906 the House of Delegates of each territorial medical association first met separately and both bodies voted officially in favor of amalgamation. Steps to reorganize into one medical organization followed.

On the following day, both Houses of Delegates were united and apportioned equally to represent both territories. The first order of business for the new House of Delegates was the adoption of its constitution and by-laws which had been prepared with the help of the American Medical Association. The new OSMA House of Delegates also set annual membership dues at \$1.50. Other action conducted during the first session of the House of Delegates was approval of a report indicating total assets for the association following amalgamation of \$1,162.92.

The final action of the House of Delegates during the 1906 annual meeting was the election of officers. B. F. Fortner, MD, Vinita, was chosen as the first OSMA president.

I most humbly accepted the challenge of being President of our State Medical Association, but how naive I was. Why couldn't I have succeeded someone who wasn't so organized, intelligent and innovative as our Past-President, Floyd Miller? My only hope is that our very capable staff and all of you will give me the guidance that I need.



During the past year as President-Elect I have received a copy of every piece of correspondence that was mailed from the OSMA. These were all responses to letters received requesting information, registering complaints, seeking legislation, etc. Now next year, since I have studied all the answers, my time will be partially spent learning all the questions. It sort of reminds me of Carnack the Great.

Only time will tell, but with the Reagan Administration keying on fiscal responsibility and transferring some federal controls back to the states, things seem to be taking a better direction.

We can make our mark on inflation by emphasizing cost effectiveness and by keeping our charges at a realistic level.

I suggest continued and increasing support of two most viable organizations. One is the AMA . . . Dr Sammons and his staff are capable people, each one of whom has a special expertise that is directed in your behalf on *all*

legislative issues that affect *your* practice. There are many other facets of AMA service of which most of us are not aware.

The other organization that I refer to is OMPAC. Their track record this year alone speaks for the amount of clout they have, but even more is needed. It behooves each of us to become a 99+ member and the sooner the better. This helps both our federal and local legislative lobbying to be much more effective.

There are eight councils in the OSMA. Most of them are very active while others function when needed. Each is chaired by a busy physician like yourself and the time that these councils spend working in our behalf is astounding. During the past two years I have met with as many of these councils as I could. I extend an invitation to you to attend or serve on one of these. You would be amazed, as I was, at the amount of work that these people so willingly do.

There is not sufficient space to give proper credit to your Executive Director, David Bickham, Associate Executive Director, Richard Hess, and Associate Directors, Rick Ernest and Lyle Kelsey. Believe me, they make this organization run smoothly. Night and weekend meetings are a way of life with them.

I will do my best to represent OSMA in all of our endeavors and with your help and suggestions, I'm looking forward to a good year.

*J. B. Pitt*



# Blood Pressure Levels and Hypertension Control Among Rural Oklahomans: The Oklahoma Lipid Research Clinic

## INTRODUCTION

LINDA D. COWAN, PhD

Assistant Member,  
Oklahoma Medical Research Foundation

WILLIS L. OWEN, PhD

Assistant Professor, University of Oklahoma  
Health Sciences Center

CARL RUBENSTEIN, MD

Associate Member,  
Oklahoma Medical Research Foundation

JUDITH HILL, MS

Senior Research Assistant,  
Oklahoma Medical Research Foundation

REAGAN H. BRADFORD, PhD, MD

Member,  
Oklahoma Medical Research Foundation

*Mean systolic (SBP) and diastolic (DBP) blood pressure measurements, and the prevalence of elevated blood pressure were compared by age, sex and reported use of antihypertensive medication in men and women who participated in The Oklahoma Lipid Research Clinics Program. Some results are reported.*

The Oklahoma Lipid Research Clinic (LRC) is one of fifteen clinics established in 1971 and 1972 by the National Heart, Lung and Blood Institute as part of an international collaborative research effort investigating the relationship of lipids and lipoproteins to coronary heart disease. A general description of the program and a summary of the characteristics of the population sample, including plasma lipid levels, were presented in earlier publications.<sup>1, 2</sup>

Visit 1, the first screening for the Prevalence Study, included measurement of serum lipid values in a probability sample of the adult population of four counties contiguous to the Oklahoma City metropolitan area. The second phase of the Prevalence Study, Visit 2, consisted of an extensive evaluation of approximately one-fourth of those participants seen at Visit 1. Subjects selected for the Visit 2 screening included a 15% random sample of those seen at Visit 1, all individuals who at Visit 1 had elevated cholesterol or triglyceride values, and subjects who were taking lipid-lowering medication.

This paper describes the distribution of blood pressure measurements in individuals who participated in Visit 2. Results of blood pressure measurements from the Oklahoma LRC are compared with a national population-based study of blood pressure, the Health and Nutrition Examination Survey of 1971-1974.

## METHODS

## Study Group

A total of 853 white men and women, aged 18 years or older, who participated in Visit 2 as part of the random sample selected from the Visit 1 population are considered in this report. Subjects were asked whether they had taken medication prescribed by a physician for high blood pressure during the two weeks prior to interview. A total of 102 (12%) individuals said they had used antihypertensive medication during that interval. These 102 individuals were considered to be hypertensive since they were taking prescribed antihypertensive medication. Four men and 29 women reported diuretic use but denied use of medication prescribed for high blood pressure control. These 33 subjects were not included in the group of 102 individuals classified as users of antihypertensive medications.

## Blood Pressure Measurement

Blood pressure measurements were taken after a urine specimen had been collected and the subjects had been resting in a quiet room for five minutes. Individuals were seated in a padded, contoured chair with their legs parallel to the floor and trunks slightly reclining. These measurement conditions were used to reduce within-patient variability in blood pressure readings due to physical discomfort, urinary bladder distention, and body position.<sup>3</sup>

Major sources of inter-observer error and variability include hearing acuity, rates of inflation and deflation and proper placement of the cuff, and terminal digit preference.<sup>3</sup> Therefore, all Oklahoma LRC personnel recording blood pressure measurements were carefully trained according to a common protocol. They were subsequently required to pass an audiometric evaluation and a certification test in order to verify technical proficiency.

Four blood pressure determinations were made on each individual, the first and third using a standard mercury manometer and the second and fourth using a Random-Zero device. A pressure cuff of the appropriate size was snugly applied to the right arm. Systolic blood pressure (SBP) was measured at first phase

and diastolic blood pressure (DBP) at fifth phase. Observers were instructed to record visual readings to the nearest even digit.

In order to be able to compare the results of the present study with those of previous investigations, the first blood pressure measurement, taken with a standard mercury manometer, was used for analyses. This measure was also selected since it is analogous to that made in a physician's office.

## Terminal Digit Preference

If the terminal digits were randomly distributed among the even digits, as would be observed if there were no digit preference, then

TABLE I

Distribution of Terminal Digits of Systolic and Diastolic Blood Pressure Measurements

Terminal Digit	Systolic		Diastolic	
	N	Percent	N	Percent
0	299	35%	369	43%
2	133	16%	89	10%
4	149	17%	123	14%
6	116	14%	105	12%
8	156	18%	167	20%
Total	853	100%	853	100%

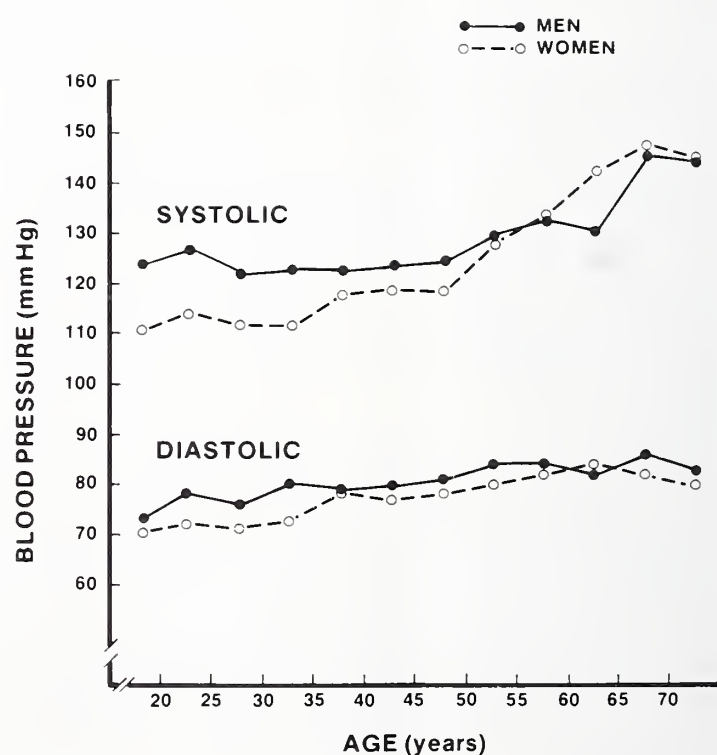


Figure 1

Mean Systolic and Diastolic Blood Pressure Levels of White Participants in the Total Random Sample by Age and Sex



TABLE 2

RESULTS

Mean Blood Pressure Levels of White Participants  
in the Total Random Sample by Age and Sex

Age	Blood Pressure	MEN			WOMEN		
		N	Mean (mm Hg)	S.D.	N	Mean (mm Hg)	S.D.
18-19	Systolic	9	124	12	8	111	5
	Diastolic		73	11		70	6
20-24	Systolic	31	127	11	35	114	14
	Diastolic		78	9		72	11
25-29	Systolic	34	122	12	42	122	13
	Diastolic		76	12		71	9
30-34	Systolic	44	123	13	45	112	11
	Diastolic		80	9		73	9
35-39	Systolic	31	123	12	42	118	21
	Diastolic		79	8		78	14
40-44	Systolic	45	124	14	43	119	17
	Diastolic		80	10		77	12
45-49	Systolic	30	125	16	32	119	19
	Diastolic		81	12		78	12
50-54	Systolic	32	130	18	30	128	19
	Diastolic		84	9		80	12
55-59	Systolic	48	133	21	46	134	16
	Diastolic		84	10		82	10
60-64	Systolic	28	131	15	37	143	21
	Diastolic		82	11		84	13
65-69	Systolic	35	146	21	40	148	18
	Diastolic		86	11		82	10
70+	Systolic	24	145	15	62	146	24
	Diastolic		83	12		80	10

### Total Random Sample

Figure 1 and Table 2 show the age-specific mean SBP and DBP by sex for the total random sample, without regard to antihypertensive medication use. The mean SBP in men was higher than that in women until age 55 after which the SBP in women was higher. Except for one age group (60-64 years), mean DBP was higher in men than in women. Systolic blood pressure remained relatively constant in men until age 49 years, then gradually increased with increasing age. In women, SBP levels showed a moderate increase from age 30 to 39 years, a plateau from age 40 to 49 years and a sharp increase after age 50 years. Mean SBP in women aged 60 years and older and in men 65 years and older exceeded 140 mm Hg, which is often used to define the upper cut-point of the normotensive range.<sup>7</sup> Diastolic blood pressure increased gradually with age in both sexes.

The proportion of untreated individuals with elevations of SBP (140 mm Hg or above) or SBP and DBP (90 mm Hg or above) tended to increase with increasing age in each sex. (Figure 2) Systolic blood pressure elevation was most common in men and women aged 50 years or older, while DBP elevation was most frequent in men aged 30-49 years and women aged 50 years or older. In subjects taking antihypertensive medication, men in all three age groups and women 30 years of age or older exhibited either elevated DBP or SBP and DBP.

each should be recorded with a frequency of approximately 20%. Table 1 contains the percent distribution of the terminal digits of the first systolic and diastolic blood pressure readings for Oklahoma LRC subjects. Thirty-five percent of all SBP and 43% of all DBP readings had zero for a terminal digit, ie, zero was recorded as a terminal digit almost twice as often as expected. This observation is consistent with those of several other studies.<sup>4-6</sup>

Terminal digit preference is one indicator of observer variability and is of importance in grouping data for statistical purposes but has limited applicability in individual patient evaluation.

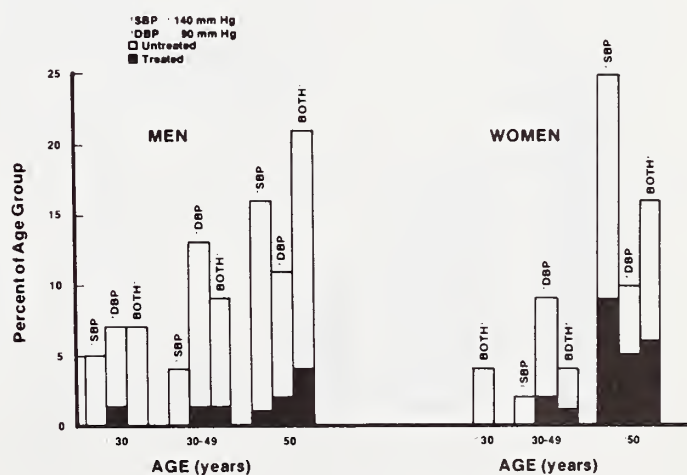


Figure 2  
Percent of Age Groups with Elevated Systolic (SBP) or Diastolic (DBP) Blood Pressure by Sex and Antihypertensive Medication Use

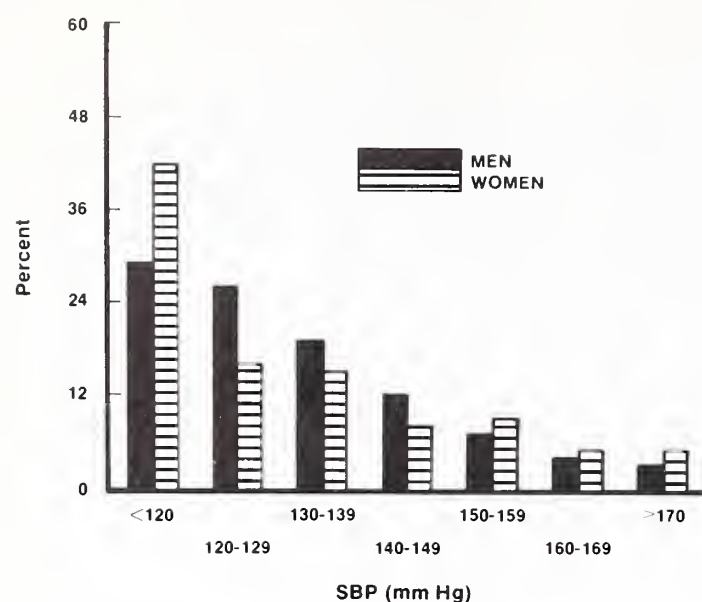


Figure 3  
Percent Distribution of Systolic Blood Pressure (SBP) Levels in the Total Random Sample by Sex

The percent distribution of SBP by sex is shown in Figure 3. The proportion of women with SBP less than 120 mm Hg or greater than 149 mm Hg was considerably greater than that for men. More men than women had SBP levels of 120 to 149 mm Hg. When comparing DBP levels (Figure 4), women were again more likely to have readings at the extremes of the distribution (ie less than 80 mm Hg and greater than 109 mm Hg). A higher proportion of men than women had DBP measurements in the range of 80 to 109 mm Hg.

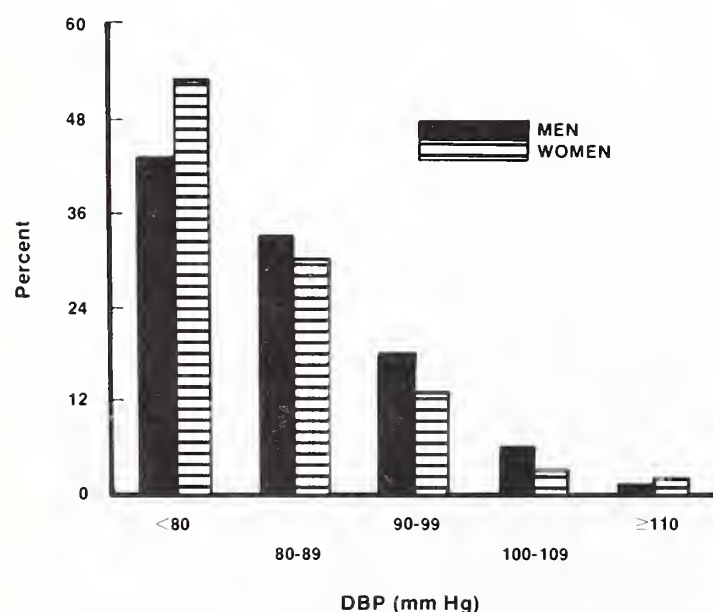


Figure 4  
Percent Distribution of Diastolic Blood Pressure (DBP) Levels in the Total Random Sample by Sex

Mean Systolic Blood Pressure By Age, Sex and Use of Antihypertensive Medication

Age/Sex	Not Using Medication			Using Medication		
	N	Mean (mm Hg)	S.D.	N	Mean (mm Hg)	S.D.
<b>Men</b>						
18-19	9	124	12	—	—	—
20-29	64	124	12	1	138	—
30-39	74	123	13	1	126	—
40-49	70	124	14	5	130	14
50-59	75	131	19	5	149	24
60-69	52	137	17	11	152	28
70+	21	144	16	3	148	11
All Ages	365	128	16	26	145	23
<b>Women</b>						
18-19	8	111	5	—	—	—
20-29	75	113	13	2	118	20
30-39	84	113	11	3	163	50
40-49	70	118	17	5	132	23
50-59	57	128	17	19	143	15
60-69	52	143	18	25	150	23
70+	40	146	25	22	145	22
All Ages	386	124	21	76	145	23

### Variation By Antihypertensive Medication Use

Table 3 presents the age-specific mean SBP levels in men and women according to use of antihypertensive medication. In subjects not using antihypertensive drugs, mean SBP remained fairly constant until age 50 years in each sex, with levels increasing with age thereafter. Diastolic blood pressure in those individuals not using antihypertensive medication showed only a slight increase with increasing age. (Table 4) There was no clear pattern of change in SBP or DBP with age among those on antihypertensive medication, although there was a tendency toward higher levels at older ages. The small number of individuals in most age groups taking antihypertensive medications made it difficult to evaluate age trends. Mean SBP and DBP tended to be higher for antihypertensive medication users than non-users.

Among those on antihypertensive medication, approximately two-thirds of each sex had elevated SBP and/or DBP, while both SBP and DBP were above the cut-point values in 46% of



TABLE 4

Mean Diastolic Blood Pressure by Age,  
Sex and Use of Antihypertensive Medication

Age/Sex	Not Using Medication			Using Medication		
	N	Mean (mm Hg)	S.D.	N	Mean (mm Hg)	S.D.
<b>Men</b>						
18-19	9	73	11	—	—	—
20-29	64	77	10	1	90	—
30-39	74	80	9	1	82	—
40-49	70	80	11	5	86	13
50-59	75	84	10	5	91	9
60-69	52	83	11	11	91	9
70+	21	82	12	3	87	9
All Ages	365	81	10	26	89	9
<b>Women</b>						
18-19	8	70	6	—	—	—
20-29	75	71	10	2	77	4
30-39	84	74	9	3	115	22
40-49	70	77	11	5	90	14
50-59	57	80	10	19	86	11
60-69	52	82	11	25	85	12
70+	40	79	10	22	81	10
All Ages	386	76	11	76	86	13

the men and 28% of the women. (Table 5) More women than men had elevated SBP only (30% compared to 8%), while slightly more men than women had elevated DBP only (12% compared to 9%). Overall, reported use of antihypertensive medication was significantly more common in women (16%) than in men (7%) ( $\chi^2 = 36.8, p < 0.005$ ).

The same general pattern prevailed among those of each sex who were not taking antihypertensive medication. The proportion of either men or women not on medication who had elevated SBP and DBP was approximately one-third that observed in those using antihypertensive medication.

## DISCUSSION

The results of the present study are similar to those of other investigations of the distribution of blood pressure levels in the general population.<sup>4,7</sup> The Health and Nutrition Examination Survey (HANES) of 1971-74 obtained blood pressure measurements from 17,854 persons 6-74 years of age.<sup>4</sup> This comprised 73% of a national probability sample selected to represent the United States population. Sample selection and general methodol-

TABLE 5

Number and Percent of Subjects with Systolic (SBP) and Diastolic (DBP) Blood Pressure Levels Over Selected Cut-Points by Sex and Use of Antihypertensive Medication

	ANTIHYPERTENSIVE MEDICATION USE?					
	YES		NO		TOTAL	
	N	Percent	N	Percent	N	Percent
<b>Men</b>						
Both Elevated	26	100%	365	100%	391	100%
SBP $\geq$ 140	12	46%	52	14%	64	16%
mm Hg Only	2	8%	35	10%	37	10%
DBP $\geq$ 90	3	12%	30	8%	33	8%
mm Hg Only	9	35%	248	68%	257	66%
Neither Elevated						
<b>Women</b>						
Both Elevated	76	100%	386	100%	462	100%
SBP $\geq$ 140	21	28%	36	9%	57	12%
mm Hg Only	23	30%	44	11%	67	14%
DBP $\geq$ 90	7	9%	15	4%	22	5%
mm Hg Only	7	9%	15	4%	22	5%
Neither Elevated	25	33%	291	75%	316	68%

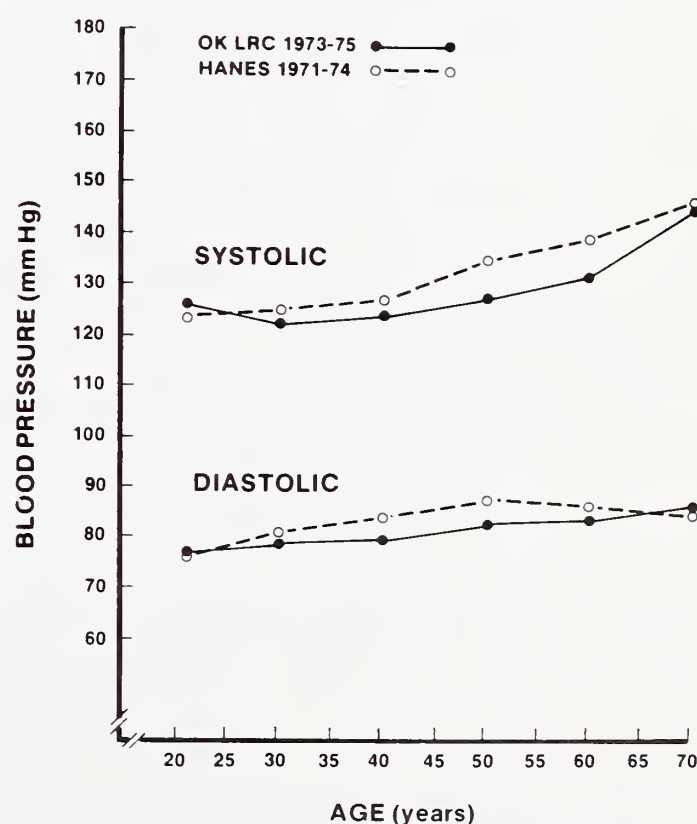


Figure 5

Mean Systolic and Diastolic Blood Pressure Levels in White Men by Age, HANES and Oklahoma LRC Total Random Sample

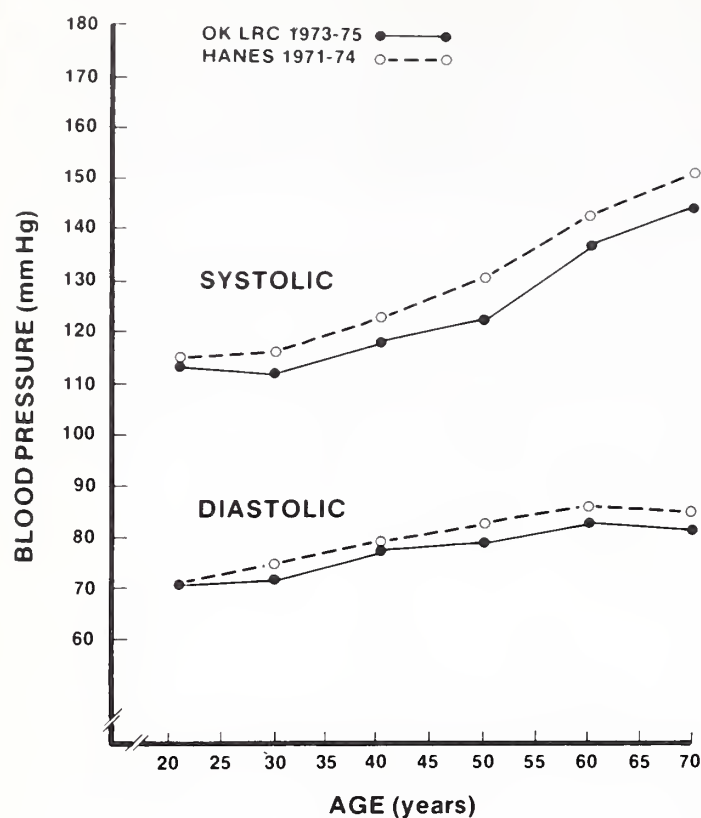


Figure 6

Mean Systolic and Diastolic Blood Pressure Levels in White Women by Age, HANES and Oklahoma LRC Total Random Sample

ogy in HANES were quite similar to that used by the Oklahoma LRC, as were the calendar years during which examinations were conducted. The age-specific mean blood pressure measurements obtained by the Oklahoma LRC and HANES are presented for comparison in men (Figure 5) and women (Figure 6). On the average, HANES levels were 2-4% higher in men and women, except for the youngest (age 18-24 years) and oldest (age 65-74 years) men. The observed differences were not, however, statistically significant.

Prevalence of hypertension varies by sex, race, the cut-points for SBP or DBP which are used, and increases progressively with increasing age.<sup>8</sup> In the present study, 9% of subjects age 18-74 years had DBP levels of 95 mm Hg or above and 20% had a DBP of 90 mm Hg or greater. Using both systolic and diastolic criteria to define elevated blood pressure, 31% of subjects had either SBP greater than 139 mm Hg, DBP greater than 89 mm Hg or both. This latter percent is comparable to that derived from the HANES (36%) using the same age and blood pressure criteria.<sup>4</sup>

Several surveys have found that women are more likely to be diagnosed as hypertensive, to

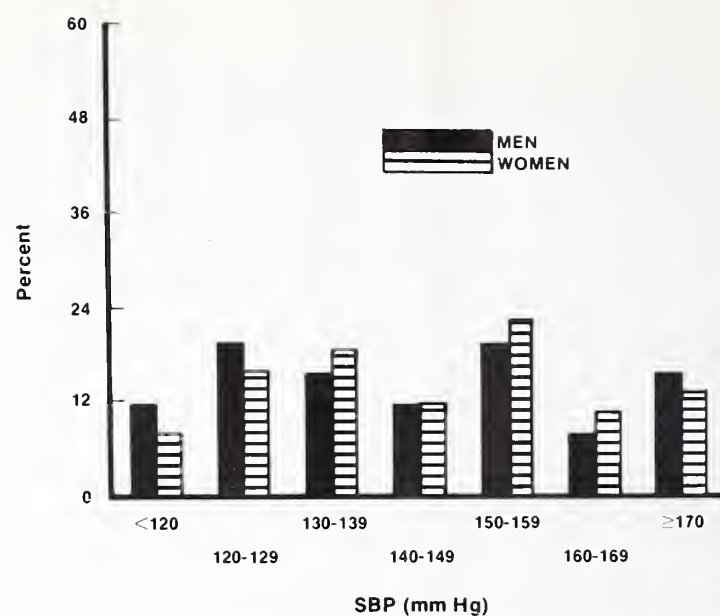


Figure 7

Percent Distribution of Systolic Blood Pressure (SBP) Levels in Antihypertensive Medication Users by Sex

be treated if diagnosed and to be controlled if treated.<sup>7, 8</sup> We were not able to assess sex differences in the frequency of diagnosis. However, the present study confirmed one aspect of these reports inasmuch as significantly more women than men were currently taking antihypertensive medication (16% vs. 7%). However, a similar percentage of men (35%) and women (33%) on treatment were fully controlled.

Some sex differences in blood pressure control were noted depending on the type of elevation. Using blood pressure measurements re-

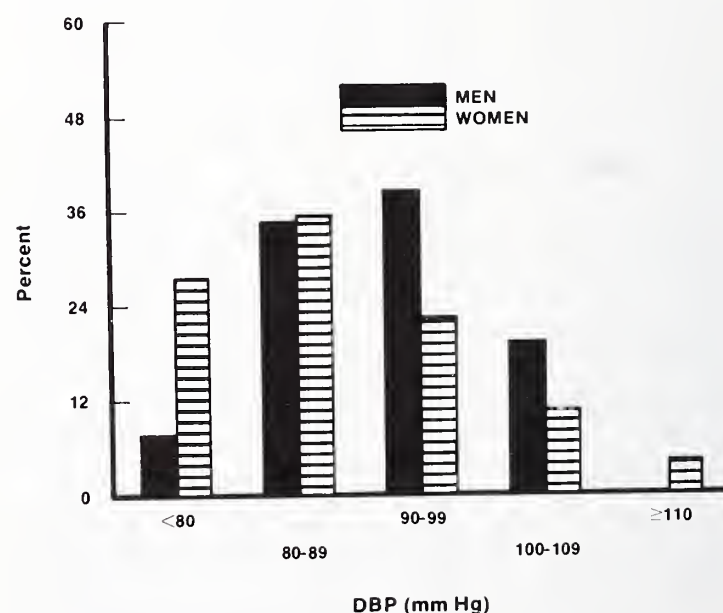


Figure 8

Percent Distribution of Diastolic Blood Pressure (DBP) Levels in Antihypertensive Medication Users by Sex



corded at a single visit and the cut-point for SBP of 140 mm Hg and DBP of 90 mm Hg, 65% of men and 67% of women reportedly on treatment for high blood pressure were not controlled. A total of 54% of men and 58% of women on antihypertensive medication had SBP levels above 139 mm Hg (Figure 7) and 58% of men and 37% of women had DBP levels above 89 mm Hg (Figure 8). Almost half (46%) of all men under treatment had elevations of both SBP and DBP, compared to 28% of the women.

High blood pressure is a significant public health concern because of the increased risk of morbidity and mortality with which it is associated and because of the large number of individuals affected. The importance of treatment of high blood pressure was emphasized recently by the results of the Hypertension Detection and Follow-Up Program which demonstrated the efficacy of a systematic antihypertensive treatment program in reducing mortality from all causes in individuals with elevated diastolic blood pressure.<sup>9, 10</sup> The reduction in mortality over all categories of DBP elevation was 17%, with the greatest decrease (20%) in mortality occurring among those individuals generally considered to have "mild" hypertension (DBP of 90-104 mm Hg). In the present study, 18% of all subjects and 88% of those with DBP elevation had diastolic levels in the 90-104 mm Hg range.

The Oklahoma State Department of Health

recently estimated that 16% of the adult white population has high blood pressure.<sup>11</sup> The present study suggests that the prevalence may be somewhat higher. Even using the more conservative estimate of 16%, more than 250,000 white adults in Oklahoma may be candidates for antihypertensive treatment.

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# Spring Meeting OKLAHOMA MEDICAL GROUP MANAGEMENT ASSOCIATION

May 15, 1981

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# Perspectives In Rocky Mountain Spotted Fever; Early Diagnosis and Management

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*Electrolyte, hematologic and liver function abnormalities can be used to support a clinical diagnosis of Rocky Mountain Spotted Fever prior to serologic confirmation.*

Rocky Mountain Spotted Fever (RMSF) has existed as a clinical entity for over a century,<sup>1</sup> but a recent review of fatal cases concluded that delay in diagnosis and treatment was the most significant factor leading to mortality.<sup>2</sup> A case of RMSF presented to the Claremore Indian Health Service Hospital in August, 1978, in which documentation of electrolyte, hematologic, and liver function test abnormalities led to an early presumptive diagnosis and treatment prior to the appearance of classical clinical manifestations or serologic confirmation.

## CASE REPORT

B.C.B. was a ten-year-old male taken to a local community hospital for evaluation of

malaise, headaches, and intermittent temperature elevation. He had no history of insect bites, nausea or vomiting, infectious contacts, or significant antecedent medical problems.

Evaluation at a community hospital led to a tentative diagnosis of mycoplasma pneumonia and he was given erythromycin. Cerebrospinal fluid studies were reported as normal. After five days of hospitalization, the boy's family removed him against medical advice and brought him to the Claremore Indian Health Service Hospital emergency room.

In Claremore the boy was found to be listless but oriented and cooperative. His temperature was 101° orally, his respirations regular and unlabored, and his pulse was 112/min and regular. Physical examination revealed no skin lesions or edema. Head, eyes, ears, nose and pharynx were normal. The neck was supple, the chest was clear, and no cardiovascular abnormalities were noted except for the presence of tachycardia. The abdomen was normal. Joints were grossly normal.

Initial laboratory studies included a chest x-ray which revealed nothing abnormal. The chemical test for bile in the urine was positive, the hematocrit was 38% and the white blood count was 5,700/cu mm with a normal differential. The serum sodium was 124mEq/ml. Serum potassium and chloride levels were normal. To further evaluate the urinalysis findings, liver function tests were carried out



and revealed a bilirubin of 1.18mg%; an SGOT of 225 IU; an SGPT of 157 IU; and an alkaline phosphatase of 167 IU; the last three values being abnormally high. Further hematologic studies, revealed the platelet count to be 55,000 and the partial thromboplastin time to be 42.7 seconds compared to a control of 30 seconds.

The clinical picture of a prolonged febrile illness, the time of year,<sup>3</sup> and the cluster of laboratory abnormalities described above led to a tentative diagnosis of RMSF despite the absence of a rash, edema, and history of tick-bite.

Initial treatment consisted of fluid restriction and tetracycline after blood and urine cultures were obtained. By the second day there developed a very faint palmar rash that could not be found consistently by different observers. Repeated temperature elevations occurred for 72 hours. By the fourth hospitalization day the patient was afebrile and his electrolytes were normal. On day five significant<sup>14</sup> serologic confirmation was obtained; agglutination titers for *Proteus* OX19 were 1:320; *Proteus* OXK, 1:20, and a *Proteus* OX2, 1:80. The serum for these tests was obtained on the first day of hospitalization.

By the seventh hospitalization day the patient had been afebrile for 72 hours, was taking a regular diet, had normal electrolytes, and reported resolution of his symptoms. He was discharged on day eight and on outpatient follow-up evaluation revealed no persistent hepatic or hematologic abnormalities.

#### SIGNIFICANCE OF EARLY DIAGNOSIS

Fortunately, the presentation of RMSF is often straightforward. The elements of tick-bite history, temperature elevation, petechial rash, edema, headaches, and malaise, and seasonal occurrence are consistently described from the earliest accounts<sup>1</sup> to current textbooks<sup>5, 6</sup> and reviews.<sup>7, 8</sup> The same sources, however, repeatedly cite the problem of the atypical presentation. Absence of tick-bite history (ranging from 22% to 45% of cases in recent series<sup>2, 4, 7, 8, 9</sup>); absence of rash (4-5%<sup>4, 7</sup>); or absence of rash at initial presentation (71%<sup>2</sup>) all occur frequently enough to make the clinical presentation of a given case potentially highly variable.

No recent analysis of signs and symptoms has made clinical assessment any more reli-

able. The persistent association of mortality and delayed diagnosis,<sup>2, 10, 11</sup> however, is standing testimony of the need for improved diagnosis.

Since RMSF is a systemic disease where vasculitic lesions are found throughout the body, derangements in multiple organ systems can be expected. Observations on disturbances of electrolytes, liver function and hematologic abnormalities have been reported from a wide variety of sources. After our experience with the case described above, our recent cases of RMSF were reviewed to evaluate the incidence of specific laboratory findings, their relationship to the primary disease process, and their contribution to diagnosis.

#### RMSF IN CLAREMORE

Between 1976 and 1978, nine cases of serologically confirmed RMSF were admitted to the Claremore Indian Health Service Hospital which serves a rural and urban population in northeastern Oklahoma. The age range of the patients was 3½-to-15 years. All cases presented between May and September.

Clinically, five of the nine cases had a history of tick-bite. Six of the nine presented with temperature elevation, and all became febrile during the course of their disease. Five of the nine presented with a skin rash.

Electrolyte disturbances were noted in four of nine patients. Five of the patients had hematologic abnormalities consisting of thrombocytopenia with or without elevations of prothrombin time and partial thromboplastin time. All nine had abnormalities in liver function studies. In three of the nine cases observation of laboratory abnormalities was recorded as a factor in starting appropriate therapy prior to serologic confirmation or the evolution of a clear clinical picture. In one case treatment was delayed for twelve days until serologic findings could confirm the diagnosis. In five cases treatment was initiated solely on the basis of physical findings and history. All patients recovered without sequelae.

#### ELECTROLYTE ABNORMALITIES

Four patients were found to be hyponatremic with serum sodium values ranging from 118 to 124 mEq/ml. Fluid restriction was instituted in two cases. Hyponatremia has been widely reported in association with RMSF. One series<sup>7</sup>



reported 88% of cases demonstrating low serum sodium values. Two mechanisms have been proposed to explain this phenomenon.

In many infectious diseases, a massive renal loss of sodium has been described.<sup>12</sup> This actual loss is accompanied by an intracellular shift of sodium in exchange for potassium and has been found to be related to a reduction in urinary secretion of aldosterone. This mechanism would indicate replacement of sodium and fluid volume as appropriate therapy.

The syndrome of inappropriate anti-diuretic hormone (ADH) secretion, defined as hyponatremia, serum hypo-osmolality, continued renal excretion of sodium, absence of volume depletion, relative hyper-osmolality of the urine, and normal adrenal and renal functions,<sup>13</sup> has been described in cases of RMSF.<sup>14, 15</sup> The presumed mechanism of the inappropriate ADH secretion is that of direct central nervous system inflammation by vasculitic lesions, the existence of which has been amply documented in autopsy studies.<sup>16</sup> Appropriate treatment in this situation is classically that of fluid restriction. A recent review, however, has stressed that even when criteria for the syndrome of inappropriate ADH secretion appear to have been met, conventional therapy based on fluid restriction does not always achieve chemical improvement and chemical improvement does not always achieve clinical improvement.<sup>17</sup>

Hyponatremia in systemic illnesses has often defied definitive explanation.<sup>18</sup> Even ignoring the controversies surrounding inappropriate ADH, the two proposed mechanisms of hyponatremia in RMSF imply opposite approaches to treatment. Unfortunately, not enough data were acquired in our hyponatremic patients to further define these mechanisms.

Since either or both mechanisms may play a role in RMSF-associated hyponatremia, awareness of these possibilities should be included in the clinical and laboratory evaluation. The fact that there exists a tetracycline (demeclocycline) that suppresses the renal tubular action of ADH<sup>19, 20</sup> could become significant if inappropriate ADH is in fact an aspect of RMSF.

#### HEMATOLOGIC ABNORMALITIES

Five of our patients had decreased numbers of circulatory platelets (60,000), and abnor-

malities of prothrombin time and/or partial thromboplastin time. One of these patients showed evidence of disseminated intravascular coagulation with elevated fibrin split products and a decreasing hematocrit and was given packed-cell transfusion during the course of his illness.

Epistaxis and localized hemorrhages are reported in early descriptions of RMSF.<sup>21</sup> Recent reports have described findings of thrombocytopenia,<sup>11</sup> deranged clotting times with hypofibrinogenemia and increased fibrin split products,<sup>22</sup> and fully documented clinical instances of disseminated intravascular coagulation demanding treatment with heparinization and replacement of blood products.<sup>4</sup> Hematologic abnormalities have been documented in as many as 55% of the cases in a recently published series.<sup>7</sup> Disseminated intravascular coagulation was documented in 17% of the cases in another series.<sup>4</sup>

The invasion of Rickettsial organisms into the endothelium of small vessels, generating a diffuse vasculitis, has generally been accepted as the basis for the abnormalities in clotting function found in cases of RMSF. The exposed, damaged endothelium is said to promote localized clumping and lysis of platelets, and thereby stimulates the complement, kinin, and the coagulation systems. There is no consistent relationship between the duration and general severity of the disease and the onset and severity of the hematologic disorders.<sup>4</sup>

#### LIVER FUNCTION TEST ABNORMALITIES

All nine of the patients seen at Claremore had some abnormalities of liver function tests,

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although only one was clinically jaundiced with a bilirubin of 2.8 mg/100 ml. SGOT ranged between 50 and 850 IU. SGPT was evaluated once and found to be elevated at 157 IU; LDH ranged between 200 and 700 IU; and alkaline phosphatase was measured between 99 and 250 IU.

Icterus is commonly mentioned in older clinical descriptions of RMSF.<sup>1, 21</sup> A recent article has reemphasized the relationship and contributed results of liver biopsy studies to complement older autopsy findings of liver involvement.<sup>23</sup> The histologic studies reported demonstrate a non-specific hepatitis with focal cholestasis. The vasculitic lesions characteristic of the disease have been demonstrated<sup>1</sup> in the liver and are presumed to be the basis of the hepatic dysfunction. No clinically significant results of liver function abnormalities have been reported, and liver function appears to return to normal in survivors.

#### IMPLICATIONS FOR MANAGEMENT

Evaluation of the electrolyte, hematologic, and hepatic function in patients being evaluated for RMSF serves two broad purposes. In cases where the diagnosis has been made, electrolyte and hematologic complications may indicate the need for aggressive evaluation and therapy.

In ambiguous cases, clustering of these defects may inspire an early diagnosis, as in fact they did in three of our nine cases. In a disease where mortality is closely linked to delay in diagnosis, the regular addition of these

laboratory evaluations to the clinical presentation may serve to promote earlier recognition and institution of treatment.

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# Parent Education: Resources Available For The Medical Practitioner

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*Parent education is a major aspect of preventive medicine being implemented in hope of positively effecting the forthcoming generation of adults.*

Optimal growth and development of young children begins with the growth and development of their parents.<sup>1</sup> Whether we are concerned with the impact of heredity or the effect of disease, the child gets its start, for better or worse, in the environment parents provide.

Parent education programs are aimed at increasing the knowledge and skills of individuals who are responsible for the proper growth and development of children. Inasmuch as the preventive aspects of medicine have focused on patients being responsible for the health they maintain, it is logical for physicians to encourage responsible parenting in support of the young patient, the child.

Parent education is not an innovative concept. In fact, many different professional and social groups have maintained an active interest in parenting over the last two centuries. "Maternal Associations" conducted meetings throughout the country focusing on the religious and moral aspects of the child. Emphasis on the character of the child was in compliance with the social concerns of the 1800's. Thus in 1875, The Society for the Prevention of Cruelty was established. This organization addressed the rights of children with emphasis being placed on the adult's responsibility.

The Pediatric Section of the American Medical Association was founded in 1880, followed by the American Pediatric Society in 1888. Indeed, both organizations set forth a dedication to the health and well-being of children. The uniqueness of childhood was emphasized, providing parents with a medical delivery system that focused on the health needs and medical care of their children.

About this same time in history numerous social organizations were established; The American Association of University Women founded in 1882, National Congress of Parents and Teachers in 1897, and the American Home Economics Association in 1908. All contribute to the on-going growth of parent education.



The involvement of the federal government in parent education was marked with the White House Conference on Child Welfare (1909) resulting in classes and demonstrations on nutrition and child care. Only three years later in 1912, the Children's Bureau was established.

It was not until 1921 that the first university class on parenting was offered. However, the interest was strong enough that by 1932 parenting was being taught on university campuses in some twenty-five states. During this period of time research in the field of child development was at an all time high. The Spellman Fund (1918-1939) provided the main financial support for parent education. The termination of this fund brought about a significant decline of professional activity in the field. At this time researchers were questioning the stability of the traditional family and examining the potential of institutional childrearing which challenged the significance of parenting. It is interesting to note that interest in parenting education was not suppressed by all this activity. In fact, during the 1940s, there was growing support from state and federal agencies, eg, mental health agencies.

The baby boom of the 1950s strengthened the profile of the traditional family. Greater interest in parent education brought about support from a variety of public and private organizations. Parents were viewed as the key contributors to the growth and development of the youth in America.

The War on Poverty (1960s) was established during the Johnson Administration and was based on the concept that low income parents did not have the same opportunity as other socioeconomic groups. Since the basic premise of parent education focuses on the parent affecting the child, it was obvious that low-income parents needed an opportunity to enhance their skills in an effort to encourage their children toward a more productive, affluent tomorrow. As a followup of the many needs-analyses that were conducted with certain low-income populations, the decade of the seventies evidenced support through social reform.

The history of parent education reflects a continuum of growth that has paralleled national concerns. In short, the crisis that is experienced as a nation affects the health status, *ie*, well-being, of mankind. Today the examination of family strengths and prevention is in-

deed a paradox to the pathological theories of the past.

Common topics of parent education courses reveal a broad-based curriculum structure. Biological factors of human reproduction is a topic on prevention that should be stressed not only through sex education, types and uses of contraceptives, and abortion, but also through the promotion of a society with high purposes, a society with full employment, and a society where all people perform meaningful, productive, and interesting tasks.<sup>2</sup> Additionally, genetic aspects are explored in topical areas that relate to influences of heredity on development. In the same discussion, equal time should be given to environmental influences.

Typically, human development specialists have offered parent education programs on child growth and development emphasizing the physical, perceptual and individual differences in young children, as well as exploring family structure and function which are common areas of interest to parents. The care of young children has been a primary concern of working mothers since the industrial revolution. Many institutions and agencies such as Planned Parenthood have offered information to parents on family planning.

The dissemination of knowledge as it is accepted and applied in each individual family will always rest upon the moral framework and emotional stability of that particular family. As physicians stress the importance of preventive medicine being the responsibility of the patient; it is important for one to realize that the parent must have a given level of knowledge to work with and the ability to make applications. The skill of caring for children is not innate in a parent as well as preventive health measures are not innate in the patient.

Obstetricians have typically found that expectant parents are a ready audience. Traditionally, courses have been offered to these parents on pregnancy and childbirth; preparation of the latter being of greater significance. The prenatal and postnatal care of the mother are some predominant topics. Some prenatal classes concerning the labor and delivery aspects of childbearing are included in parent education as well. The prenatal classes at the Group Health Cooperative of Puget Sound in Seattle attempt "to provide the opportunity for participants to explore their feelings, ideas and attitudes about the parental role."<sup>3</sup> Informa-



tion on child care and parenting is provided during the second trimester of pregnancy and is reportedly well-received both by the patients and physicians. The Metropolitan Health Services of Greater Vancouver, British Columbia, evaluated the effectiveness of educational programs for expectant parents and revealed that 38 percent of the participants requested more instruction on postnatal care during the first few weeks at home focusing on the care of the infant. As a primary health care provider, the pediatrician can provide information on the needs of infants that relate to nutrition, health, protection, safety, and care in general.

In a recent study of expectant parents who were attending a course on childbirth in the Greater Dallas area, it was found that these parents were lacking a basic knowledge of child growth and development, and were eager to attend parenting classes on a variety of topics. They were especially in favor of health care providers teaching these courses.<sup>4</sup> Parents are in need of such programs as The Young Family Resource Center, in San Antonio, which provides expectant parents as well as young families with a wealth of resources for enhancing their knowledge.

Due to the large number of parents with special needs and the diversity of their needs, parenting programs have developed which focus on specific populations. As a primary health care provider, the physician has the unique opportunity to direct parents to the appropriate resource. After identification of the specific parenting needs, the resources which are available to the parent must be ascertained and discussed with the parent. In this discussion, we will examine parenting resources for

the following groups: adolescent parents, parents under stress/abusive parents, parents of the handicapped child, parents of the exceptional or gifted child, parents of the terminally or chronically ill child.

As the number of adolescent pregnancies continues to rise, the need for effective parent education for young parents increases.<sup>5</sup> Programs for these parents have been developed throughout the nation. Organizations in Oklahoma which provide or can recommend programs include city and county health departments, planned parenthood, American Red Cross, and children and family services agencies. The National Alliance concerned with school age parents (7315 Wisconsin Ave., Suite 516-E, Washington, DC 20014) is a resource which can be used to identify parenting programs for teenagers in Oklahoma, as well as across the nation.

Regardless of the source of anxiety, parents under stress may have difficulty with interpersonal interaction with their children. Much too often this can lead to child abuse. Several self-help groups have evolved in the past decade which are aimed at improving the parent/child relationship. An example is Parents Anonymous. Other programs have been developed within health care institutions, such as The Parent Education Program developed at Children Hospital Medical Center in Boston.<sup>6</sup> This program consists of 12-to-14 weekly sessions which include child growth and development, information on job training and planning careers, recognition of strengths and positive qualities of the parents, and household management. All of these areas of family living are frequently the source of stress for parents. Finding programs for these parents may be more difficult. Resources include children and family services, extension services such as Oklahoma State University Extension Service, or a university which has a Health Sciences Center such as Oklahoma University.

The handicapped child frequently has needs which are different from the normal child. For instance, the child with cerebral palsy may have feeding problems or the Down's Syndrome child may have specific educational needs in order for optimal development to occur. Frequently, private foundations which operate specifically to improve the quality of life of those individuals with specific disorders have parent education programs available. A directory of programs is often established by

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mental health departments which identify resources within a region.

Exceptional children are now being recognized as having their own special needs. Parents may welcome help in learning to deal with these children. However, this is another group of parents to which little has been offered. Again, the best resources of specific communities may be the nearest university extension programs or child development and family living departments. Another resource is the Institute for Research on Exceptional Children (402 E. Healey Street, Champaign, IL 61820).

Discussion groups can be extremely helpful to parents who have a chronically or terminally ill child. Specific associations, such as the American Cancer Society or Cystic Fibrosis Foundation, often have information concerning parent programs.

Before recommending a source of parent education, the health care provider must objectively evaluate the program, materials, and resources. First, is the material in the book, pamphlet, or presentation up to date? Is the essential content present? Are the visual aids accurate? Is the information relevant to the specific needs of the parents being referred? Will the parent be able to make a logical connection between the material presented and application? In other words, can the parent effectively utilize the information obtained to promote optimal growth and development of the child? The universality of program or material is another important item to consider. Would it be appropriate for only certain parents? If so, what parameters could one use to determine which parents would or would not benefit? Availability of the program can be another factor which must be evaluated. Suggesting a program which is not currently available or acceptable can cause further frustration to parents. If there is a need for attending a program, will the parent benefit substantiate the cost? When recommending written material, evaluate the necessity of the parents owning the material rather than using library or other lending resources.

When referring a parent to a program, the objectives in learning activities of the educational activity should be evaluated. Do the activities reflect the objectives for the class? Are the objectives realistic or is too much expected from the parent? Will the nature of the learning activities be appropriate? Another ex-

tremely significant factor is the ability of the instructor. Does the parent educator have the necessary background to be teaching the program? Does the instructor have the capability to outline the alternative strategies? Finally, is the parent educator responsive to the needs of the parents? In addition, conditions involving the parent can influence the learning experience. Is the parent ready for parent education? If so, to what degree and which mode of parent education would be most effective. The educational level of the parent will also be a determining factor. For example, college graduates may desire a more detailed pamphlet on breast feeding than the young adolescent.

The evaluation of the financial resources of the parents may save time as well as prevent embarrassment. If possible, identify resources which provide free parent education to individuals who are unable to afford fees. The other factors which may determine whether a parent participates in parent education are the encouragement they obtain from their family and child care arrangements. Because each parent comes with his own particular experiences and background, each is different. Recommendations to parents must be individualized by taking into consideration the numerous variables which affect them.

## PARENT EDUCATION RESOURCES:

Unwed pregnant teenagers services (school-age parents) education, workshops and research.

Consortium on Early Childbearing  
1145 19th St., N.W. Suite 618  
Washington, D.C. 20036

For general education for unwed parenthood material (articles and overviews of programs) write:

Ypsilanti-Carnegie Infant Education Project  
High/Scope Educational Research Foundation  
125 N. Huron  
Ypsilanti, Michigan 48197

Child Abuse information and resource centers can be located at

Region V Child Abuse and Neglect Resource Center

## Education / STAFFORD, BOYD

School of Social Welfare  
The University of Wisconsin-Milwaukee  
P.O. Box 786  
Milwaukee, Wisconsin 53201

An outline of the major agencies on Child Abuse and Neglect is provided in the following article. Case descriptions are provided. "Child Abuse and Neglect Programs: A National Overview," by Saad Z. Nagi. *Children Today*, Vol. 4, No. 3, May-June, 1975, pp. 13-17.

Free information on Drug using children is available upon request from  
Project Dare  
Drug Abuse Research and Education  
c/o The Neuropsychiatric Institute  
UCLA Center for the Health Sciences  
760 Westwood Plaza  
Los Angeles, California 90024

The National Coordinating Council on Drug Abuse Education and Information, Inc.

Suite 212, 1211 Connecticut, N.W.  
Washington, D.C. 20036  
(Sponsors state and local groups and organizations in the area of drug abuse education.)

Free materials are available to parents and children from the  
National Institute of Mental Health  
Clinical Research Center  
Leestown Pike  
Lexington, Kentucky 40607

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# What Does His Pain Mean to the Patient?

WILLIAM N. HARSHA, MD

*Patients who visit their physician with a pain complaint are appropriately concerned as to what the pain means. Many patients have great fears or anxieties which further intensify their pain.*

Pain is a very personal experience. It is so distinctive and unique for each patient that it has a character as individualized as fingerprints. Pain can be either acute or chronic. Acute pain is a message to its victim. For example, pulling tangles out of your hair in the morning may cause you some very short-term pain, or burning your finger may produce longer-lasting acute pain. A hangnail or an ingrown nail may annoy or irritate you all day. Corns on your feet may start acting up when you wear tight shoes. Your spouse yelling at you, or your children making many demands on you, may end up in a headache. The headache may simply result from feeling pushed or criticized at work. All of these aches and pains,

stings and burns are pain messages that your brain perceives.

All of the above minor pains are relatively easy to handle. They are short-lived, and you really don't have to worry about them. You can always pinpoint their source. Acute pain is generally sharp and short. It is a warning that has a time limit. It tells you that something is wrong in some part of your body and that corrective action is necessary. The time limit can be the instant that it takes to pull a comb through a knot in your hair or even the longer time that it takes for a mending bone to heal. These are scientifically predictable periods of time. As physicians we know how long it takes acutely damaged tissue to heal. Acute pain very rarely lasts more than a two-month period.

Acute pain, therefore, has a protective function, whether it is a result of a blow, of heat or chemicals, or whether it is a result of a disorder of the body's pain-producing mechanism, such as damaged nerves, ruptured discs, arthritis or chemical imbalances that send acute pain messages.

Length of time provides the basic distinction between acute and chronic pain. Although the experience of pain is always subjective and personal, when it lasts longer than four-to-six months or when it is relatively constant and steady, it is defined as chronic pain.

Unlike acute pain the sources of chronic pain are often difficult to pinpoint. Acute pain can be called a symptom of wounds, burns or fractures, but chronic pain is a disease itself. It is a very complex disease which often has an underlying tissue-damage etiology or trigger that may be nearly impossible to detect.

For this reason the biggest problem for chronic pain patients is that of convincing somebody to believe that they are actually suffering from pain. Unless it has happened to you, it is hard to believe that anyone could live with pain for months and years. Chronic pain coupled with this lack of understanding causes many of our patients to find life unbearable and even to consider suicide. Where do these chronic pain sufferers find someone to believe them and help them find relief then?

"It hurts me."

"It feels real bad."

"I'm so uncomfortable."

"There's a knife slowly twisting in my back."

"It feels numb."

"It's a prickly, sticky sensation."

"It's heavy."

"It's awful."

"It burns."

"It feels like pins and needles."

"It feels like an elephant is sitting on my chest."

"It feels sore."

"It's a searing pain."

"It's intolerable."

"I'm never without it."

The above phrases are just a few of the ones I frequently hear used to express pain. They can be described as sentiments, physical sensations or emotions.

It is easy to see why so many physicians fail to diagnose chronic pain or to trace it back to its source. They simply don't know what their patients are talking about. A person with acute pain can point to his broken leg, ruptured disc or burned hand and say what is bothering him, but the person with chronic pain is frequently misunderstood by his family, friends or even his own doctor. The pain that is so obvious to the chronic pain sufferer is completely invisible to others, and may not even be considered a serious problem by them.

Another problem for the chronic pain sufferer is that his pain generally cannot be measured or tested with most diagnostic

equipment. A hidden pain for which no clear remedy can be prescribed can evolve into a life-style for many people. Chronic pain can dictate when you get up in the morning, what you do during the day, and when you fall asleep at night. Many chronic pain sufferers are ready to do almost anything that will stop their constant pain.

If you have chronic pain the following example may sound familiar: You took your pain to your local druggist for an over-the-counter cure. He suggested a commercial remedy slightly stronger than aspirin. Since you told him that pain kept waking you up at night, or sometimes prevented you from going to sleep at all, the druggist also suggested an over-the-counter sedative. You tried these non-prescription drugs for a while without effect, and now without sleep you have become even more irritable. With nothing really available in the market place to stop your pain, you decided it might be time to see a doctor. You told him your problem, but he could not see or feel anything out of the ordinary. He took tests, ordered X-rays, poked and probed. Finally, he gave you a prescription for a pain killer. You took it faithfully and on schedule. It seemed to make some pain ease up a little, but it made you groggy. You went back to the doctor with these complaints, and he prescribed a stronger pain-killer with a narcotic base. He may also have prescribed something to make you more alert during the day, but then you were so alert that you could not get to sleep at night so you started gulping down left over sleeping pills. You ate them like candy, and soon you were carrying around what seemed like shopping bags filled with rainbow-colored pills and capsules. At the same time, however, you were carrying around your pain just as intense and impairing as ever. If you had the time, money and stamina you went to several doctors look-

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ing for somebody who possessed a magic pill, or a magic surgery, or a magic something to give you the relief you were after. All the doctors prescribed more pills, but to no avail. Eventually you had sought out the best advice in your community. Now there was nobody left to give you new ideas. They told you they had done all they knew to do. You were now more desperate than ever, and still willing to try anything and everything. Through a friend of a friend you were referred to a surgeon. When you made an appointment he said he might be able to help you but no guarantees. He had helped other people with similar conditions, similar complaints. "Maybe," he said, he would "take something out." You were willing to risk an operation, even several operations, "anything" to get rid of the pain. The pain might have disappeared after the surgeon's scalpel made its mark, but even if it didn't everyone was tired of hearing you talk about your operations, aches and pains.

Unfortunately, in some cases, relief from this life-style, relief from chronic pain may paradoxically bring out another illness: Depression. Some scientists suggest that it can replace physical suffering as a focus for all thought, and a determinant for all activity. This phenomenon is called "replacement depression" and it attacks people who actually need their chronic pain, and to whom the pain has become a useful part of everyday life. The person who has to convince himself there is a reason he is unable to work, unable to perform to standards, to have good sex with his spouse, or as with some whiplash victim who heals no sooner than his insurance claim is settled, or anyone who has come to use chronic pain as proof that he is alive (something like pinching yourself to prove that you are not dreaming) is a likely candidate for this chronic pain syndrome. Take the chronic pain away and you are taking away his security blanket. You may cause him to become depressed.

This replacement depression is similar to a depression seen in victims of a brain-washing or survivors of a concentration camp. These victims and survivors had adjusted to a way of

life. They depended on the routine of abuse and harassment as a stabilizing element in their otherwise chaotic life. They adjust their feelings, activities, and even instincts for survival, to that way of life. A sudden change in the routine, even if it led to an improvement, imposed unexpected distress and stress. This stress in turn led to depression or even psychiatric breakdown. The same holds true with the chronic pain patient suddenly deprived of his pain. His routine is changed. There is stress to adjusting to a new way of life, and depression may well set in.

Unfortunately chronic pain may be addictive. Some scientific studies have shown that brain pathways that carry a great many pain messages come to expect them, and carry the chronic pain messages even if they no longer are sent by the original source. It is like a computer that continues to send the bill long after the bill has been paid. As with a computer, it is generally possible to reprogram a brain.

Chronic pain can attack any of us. How long it lasts, how it feels (dull, sharp, stinging) differs from person to person. Chronic pain is a personal perception, an individual experience, and IT IS REAL. Never let anyone convince you that it is all in the head.

The best solution for chronic pain is prevention. It is important that the patient with acute pain know what acute pain means to him, and avoid moving down the road to chronic pain. The acute pain patient can do so much to help himself by simply understanding himself and how he deals with his personal unique pain.

I have found that talking with patients along the lines mentioned in this article in a group context, or when this material is used as a printed handout it is beneficial in management of musculoskeletal pain problems. The ability of a patient to understand what pain and its perceived impairment means to them as a person in the situation present in their lives at that time is an important starting point for the management of pain, be it acute or chronic.

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# Mainstreaming of Disabled Students In My Community Schools

By JEFF BOYD

*The Oklahoma State Medical Association has awarded a Putnam City School teacher an expense-paid trip to Washington, DC.*

*For several years, OSMA has provided the trip for the teacher of the student winning the "Ability Counts" essay contest. This year Jeff Boyd of Putnam City High School won the contest and his teacher, Dr Alva Card was the recipient of the OSMA-sponsored award.*

*The Ability Counts contest is conducted annually for high school students in the state by the Governor's Committee on Employment of the Handicapped. This year's contest theme was "Mainstreaming of Disabled Students in My Community's Schools."*

*The Governor's Committee on Employment of the Handicapped judged all entries on evidence of research, originality, impact, organization, clarity of expression and neatness.*

In today's society there are many complex problems, both national and international. None of these are (sic) more important than the education of handicapped citizens, for from the mind of one impaired in body may come the solution to serious problems that affect us all. If our society is to fulfill its potential, all segments must come together as one harmonious whole.

Just as a river rises from small beginnings to a mighty waterway to a great ocean, so an idea

rises from a small beginning to become a main stream. Concerned citizens have long thought that the handicapped should be mainstreamed into society, and Public Law 94 Section 142 made this mainstreaming a reality. With mainstreaming, a handicapped student need not dive off the side; he or she may slowly move down the bank to the edge of the water. Inching his way in, the swimmer may test the water to see if it is suitable for swimming. If the swimmer doesn't like it, he may go to a different part of the river. If he likes it, he will move into deeper water in order to have a better swim. The intent of Public Law 94-142 is to place the handicapped student in an environment in which he or she can succeed. Thus, in the beginning of his mainstreaming experience, a disabled student may be put into regular classes only one hour a day or all day, depending on his individual limitations and needs.

The schools in my community are swimming with the current to make mainstreaming a reality. If a student is mentally handicapped, he or she is put in a learning lab program to help them in areas in which they are least proficient. There are fifty-five learning lab classes in Putnam City Schools. All students in the lab are mainstreamed at least one hour a day; some as many as five hours to all day long. Multi-handicapped students are also mainstreamed at least one hour a day. An aid goes with the multi-handicapped students, providing assistance when needed. Each student who



is emotionally disturbed has an aid to accompany him or her, this service being provided and paid for by the school.

In my school district there are twenty-three schools. Last year these schools serviced a total of 1,664 disabled students. This year there are two classes for the hearing impaired, one class for the visually handicapped, and six classes for the emotionally disturbed. In the last category, there are three elementary classes, one junior high school class, and two high school classes. Our school district has eleven speech pathologists, eight psychometrists, five certified psychologists, and two physical therapists, one of whom travels from school to school as needed. My school district is doing its part to make mainstreaming a reachable goal for all who wish it and can profit from it. A student is entitled to the least restrictive environment in which he can function; and in my school district that environment is certainly provided.

Some disabled students attend school only about four hours a day; then they are put on work study. This gives the students an opportunity to enter the working world, where they will someday need to function as wage earners. When these people step into the main stream, swimming where they can do so, they become contributing citizens rather than people dependent on the charity of relatives or the welfare programs of the state.

In an assembly last year at Putnam City High School, Paul Anderson, billed as the strongest man in the world and a person who has himself overcome tremendous physical odds, made this statement: "It's not the vehicle that counts; it's the driver inside." If someone has a fast car, it's not the car that does the

speeding; it's the driver. It isn't the outside or physical appearance of a person that counts but what that person is like inside. Often a handicapped person is more determined, more understanding of others, more eager to succeed than a person to whom success comes easily. Mainstreaming cannot guarantee that a disabled person will succeed, but it does give him or her the opportunity to try. A person who is mainstreamed when young, as a student, will find he can swim better as an adult because of the lessons he learned at an early age. Those students who are not handicapped physically or mentally likewise benefit from the experience. They learn to swim together with those who must try hard to succeed, and they become aware of how others must struggle. If, at a later date, an accident or illness makes them incapacitated, they will have seen others overcome obstacles and succeed.

Veterans have long known that wars cause many problems, other than the obvious ones of participants being maimed or killed. Veterans organizations have led the field in providing services for the disabled, and now the government has mandated equal education for the handicapped. Thus we have a start in solving one problem that has long plagued mankind: the problems of the disabled. If the physically, mentally and emotionally handicapped can swim with the current, they will arrive safely at the headwaters of the stream.

By all working together, each tributary flowing into the main stream, our river will reach its delta, its power spreading out over the land. If citizens understand one another, each reaching a place where he or she can function well, one of the many problems of mankind will be solved. □



## News From The Oklahoma State Department of Health

While health education programs have been a part of public health programs for many years, the great failing of many of these efforts has been an inability to personalize the health message to the specific needs of a particular individual. A recent development, based on the concept of "prospective medicine," is being incorporated into the services of the Oklahoma State Department of Health (OSDH).

Health Hazard Appraisal (HHA), a personalized motivational and screening program, allows individuals to consider their own behavioral patterns and be informed as to how their lifestyles may be changed to improve the length, quality and productivity of their lives.

The individual participating in HHA completes a short questionnaire composed of 37 questions regarding lifestyles. The information is then computer processed, and the resulting printout compares the individual's chronological age with his "appraised age." These results are obtained by evaluating the 12 leading

causes of death for a person of a given age, sex and race as they are modified, favorably or unfavorably, by the reported behavioral patterns. For example, a 35-year-old white male with a poor lifestyle might have an appraised age of 40, while that same individual with positive health habits may have an appraised age of 30. The results specify the mortality factor linked to each behavior and how these patterns can be altered to decrease the risk of mortality.

Included in the results is the compliance age, which is based on the same 12 mortality classes, but quantifies the probabilities for longevity assuming adoption of changes in lifestyle.

This new program, being introduced in Oklahoma through the OSDH's Health Education and Information Service, has been made available to selected groups during the pilot year of operation. For the future, the department plans to incorporate HHA into routine chronic disease screening activities of the department, as well as to industrial and other occupational groups in the state.

Health Hazard Appraisal is viewed by department officials as a key component in the OSDH's continuing emphasis of health promotion and disease prevention. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR FEBRUARY, 1981

DISEASE	FEBRUARY 1981	FEBRUARY 1980	JANUARY 1981	TOTAL TO DATE	
				1981	1980
Amebiasis	—	5	—	—	5
Aseptic Meningitis	2	3	1	3	6
Brucellosis	—	—	—	—	—
Encephalitis, Infectious	3	—	1	4	—
Gonorrhea (Use Form ODH-228)	1107	941	1273	2380	2303
Hepatitis A	28	35	14	42	51
Hepatitis B	23	15	6	29	29
Hepatitis Unspecified	12	21	13	25	32
Malaria	1	3	—	1	3
Measles (Rubeola)	2	10	—	2	11
Meningococcal Infections	6	3	—	6	4
Pertussis	1	1	—	1	3
Rabies (Animal)	12	13	11	23	27
Rocky Mountain Spotted Fever	—	—	—	—	—
Rubella	—	—	—	—	—
Salmonellosis	17	12	25	42	24
Shigellosis	16	16	8	24	26
Syphilis (Use Form ODH 228)	9	8	14	23	15
Tetanus	—	—	—	—	—
Tuberculosis	13	26	29	42	49
Tularemia	—	—	—	—	—
Typhoid Fever	1	—	1	2	1



## Doctor Pitts is New OSMA President

The new president of the Oklahoma State Medical Association is James B. Pitts, Jr., MD, Oklahoma City. He was installed into office by past-president, Floyd F. Miller, MD, Tulsa, during the 1981 OSMA Annual Meeting held May 7-10 at the Shangri-La resort, Afton, Oklahoma.



Doctor Pitts established his current medical practice of obstetrics and gynecology in Oklahoma City after serving in the army from 1947-1949. He was graduated from the University of Oklahoma School of Medicine in 1946.

Doctor Pitts has participated in a variety of organizations and activities, including past-president of the Oklahoma City OB-Gyn Society; clinical professor of obstetrics and gynecology, University of Oklahoma School of Medicine; instructor for the Oklahoma City Police Department in OB-Gyn emergency care; honorary chief for the Oklahoma City Fire Department; vice-president of the All Sports Association; and chairman of the Goodwill Tour Task Force of the Chamber of Commerce. In addition, he was president of the Oklahoma County Medical Society in 1974 and a member of the executive committee of the All Sports Association in 1973.

He is married to Doris Pitts and they have four children: James B. III, Dana, Margo and Laurie. □

## AMA to Offer Course For Foreign Physicians

The American Medical Association will offer an intensive one-day course for foreign doctors on improving their communication with patients. The course will be held Saturday, July 18 at the AMA headquarters in Chicago, IL.

The course will be taught by Mrs Elizabeth Lang, Professor of English, Cuyahoga Community College, Cleveland, OH. Activities for the course will include lectures, practices in producing the sounds of general American English, intensive oral drill with criticism of individual students and practice in sustained

extemporaneous speaking. In addition, the course will offer credits in continuing medical education.

The course is limited to 20 students. However, if at least 10 additional students enroll, another course will be offered on Sunday, July 19.

For further information contact Henry Mason, Division of Professional Relations, AMA, 535 North Dearborn Street, Chicago, IL 60610. □

## ACS Schedules Oncology Symposium

The Second Annual American Cancer Society (ACS) Oncology Symposium will be held at Shangri-La Lodge, Afton, Oklahoma, on August 15, 1981. The title of this year's symposium is Management of Carcinoma of the Breast. In addition to speakers from Oklahoma City and Tulsa, there will be three out of state lecturers, covering the areas of surgery, radiation therapy and medical oncology.

Doctor Guy Robbins from the Memorial Sloan-Kettering Cancer Center will speak on Surgical Management of Primary Breast Cancer. Doctor John Horton, Albany Medical College, will speak on Adjuvant Therapy of Breast Cancer. Doctor Seymour Levitt, University of Minnesota, will discuss the controversial issue of Radiation Therapy as the Treatment of Primary Carcinoma of the Breast.

Other topics to be presented include Risk Factors in Breast Cancer, Pathology of Breast Cancer, Estrogen and Progesterone Receptors in Breast Cancer, The Role of Reconstructive Surgery in Patients with Breast Cancer, Psychological Effects of Mastectomy and the Management of Recurrent Carcinoma of the Breast.

Physicians and nurses are invited. Information concerning registration can be obtained by contacting Mr Paul McDaniel, American Cancer Society, 1312 N.W. 24th, Oklahoma City, OK 73106. 405 525-3515. □

## Help Urged For Women With No Prenatal Care

According to the American Medical Association one fourth of the new mothers in the United States give birth with little or no prenatal care. Consequently, preventable maternal deaths and health problems for infants occur.

In a report issued by AMA's Committee on Maternal, Adolescent and Child Health of the AMA Council on Scientific Affairs, the committee outlined the problem and offered suggestions for a solution.

The report said some reasons for mothers giving birth with little or no prenatal care include insufficient funds for public or private services, lack of transportation to such services, ineligibility for public services, language difficulties and inefficient or inadequate services. The report also said some women fear deportation, while others fear the physical examinations or tests, loss of privacy, parental reaction, and unfriendly physicians and nurses.

The AMA committee has requested that an all-out national effort be made by physicians, government and the public to help more women, obtain prenatal care. The report added that prenatal care is costly but not as expensive as the effects of poor care.

The committee's report also made the following recommendations: (1) reaffirm AMA's long-standing position regarding the major importance of high quality obstetric and newborn care by qualified physicians and the need to make such care available to all women and newborn in the US; (2) urge the executive and legislative branches of government to halt the increasing fragmentation of federal programs dealing with maternal and child health care services and place all programs in a single office with budgetary authority; (3) urge the states and the federal government to fund Medicaid and other public programs sufficiently well to guarantee equal access to adequate care for the needs of all pregnant women and their children; (4) educate the public to the long term benefit of proper care and hospital birth as well as the hazards of inadequate care; and (5) continue discussion of means for improving maternal and child health services for the medically indigent and the culturally displaced. □

## New Fad Creates New Medical Problem

In conjunction with the recent, nationwide craze for western dancing and wearing western-styled clothes, the new fad of riding mechanical bulls is causing one of the country's newest medical problems — "Urban Cowboy Myoglobinuria."

Recently, the *Journal of the American Medical Association* included an article on the condition. It was written by two California doctors, who are also responsible for naming it urban cowboy myoglobinuria. The article describes the causes and symptoms of urban cowboy myoglobinuria in one of the doctors' patients, a 30-year old man who has also ridden real rodeo bulls.

The patient rode a mechanical bull on a speed setting indicated for professional riders. He rode three rounds of ten seconds each and was thrown off on his last ride. Later he experienced swelling and pain in his entire right arm, suffered back and groin pain and noted blood in his urine.

After the patient was treated for several days in a hospital he recovered. The doctors explained that the patient was fortunate in that his state of hydration probably protected him from developing acute renal failure. □

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# DRUGS AND DIRTY TRICKS

I live about five miles from my office and I love watching football games on television. In fact, some Sundays in the fall I spend all afternoon and evening absorbed by the television contests between four professional and (the playbacks of) two college football teams. Understandably, I don't like to be disturbed but, because I have a large mature practice, I am frequently distracted, especially by telephone calls.

One Sunday evening, about supper-time, I answered a call which came during the last ten minutes of an exciting, highly publicized game. It was from the pharmacist of one of the pharmacies I frequently use. Good! I thought. This won't take long. A patient of mine had come in just minutes before they were closing and asked them to call me for an okay on some medication I had prescribed for the relief of her severe headaches. Would I like to talk with her?

"Doctor Blank?" she asked in a soft, almost seductive tone of voice with an apologetic air. "This is Betty Lou Doe — you remember me — maybe you know me better as Mrs John Doe — and I haven't seen you in more than a year — you practically cured me and I just haven't needed a doctor since then — but my headaches — you know, those severe migraine things I had for so long before you cured me? Well, they're back and if I don't get a few of those magic Percodan — or something like that — pills of yours — I'll just die — or cut my head off or something!"

Betty Lou Doe? Doe? John Doe? I racked my memory and came up with nothing. A long, long pass was caught, then dropped in the end zone. My wife announced that supper was served. The pharmacy was closing. Damn, I thought, I'm getting senile.

"I'm awfully sorry Mrs Doe, but I don't remember you. When were you last in my office?"

"Well, I was only there once and it was a year ago last June — when you gave me a complete check-up. You surely remember that our mutual friend, Judge Jones referred me to you. I'll love him forever. I'm really disappointed.

I'll never forget you. And I'm embarrassed. They're turning out the lights here. Waiting on me. What should I tell the pharmacist?"

There was a fumble, but you couldn't tell which team recovered. I heard my wife say the soup was getting cold.

"Well, I'm awfully sorry, Mrs Doe. Let me talk to the pharmacist again."

"Yes, Dr Blank, what do you want us to give Mrs Doe?" the pharmacist asked. Frankly, I was going to ask some questions of the pharmacist, but I didn't want to detain him. He'd probably had a hard day.

"Give her a dozen Percodan tablets, enough for twenty-four hours or whatever the law permits," I said, with an air of determination.

"And tell her to call my office tomorrow. My DEA number is \_\_\_\_\_."

"Thanks very much, Doctor. By the way, who's winning the big game?"

"I really can't tell at the moment," I said. "It's been a wild one. Thanks very much." I added.

I enjoyed the rest of the game while I ate my still warm supper. My favorite team won by an extra point. But I lost.

The next day I confirmed my suspicions. I'd never seen a patient by the name of Betty Lou Doe, AKA, Mrs John Doe. Damn it again. I'd been *had*.

Looking back, I should have asked her if I practiced family medicine or OB-GYN. I practice neither. I should have asked her where my office was and whether I wore a long or a short white jacket. I wear street clothes. True, she could have given all the right answers and still have been a fraud. But it isn't likely and, as soon as she tripped I could have told her she had the wrong Doctor Blank and hung up. Next time, I will think. Especially if I'm *not* watching a football game.

I wonder if that part of it — with the store closing and at supper time and during a popular television program — was all deliberately planned. It sure could have been. Very, very clever of them. Very, very stupid of me.

Anonymous.

## Women to Suffer Poorer Health Conditions According to Report

Women's death rates from heart and respiratory diseases are expected to be higher than in the mid-1970's says a report written by Nancy Milio, PhD, professor of health administration, School of Public Health of the University of North Carolina.

Doctor Milio predicts that the liberation of women permitting them to become more involved in the work-a-day-world will actually cause the decline of their health before the turn of the century. Consequently, she says the eight-year gap between the life spans of men and women with women now experiencing the longer life span will become much narrower by the year 2000.

Doctor Milio said liver cirrhosis, poor circulation and digestive diseases will eventually cause as many deaths in women as they are now causing in men. She says the pressures

of increasing economic responsibilities of women will contribute to the increasing death rate of women.

Other factors which Dr Milio says will decrease women's health conditions are their changing behavioral patterns. For example, she explained that more women are smoking now, many of them are as much as 20% overweight and they are less inclined than men to participate in sports and other forms of exercise.

Doctor Milio's report cited other data to support her prediction. She pointed out that women are more susceptible to the health risks that are imposed by low income and poverty. According to her report statistics indicate that the majority of women are earning less than 60% of a man's income. She also explained that women's diets also hamper their health conditions because they frequently do not contain enough calories and iron. In addition, Dr Milio said most working women usually experience an added workload of work at home. □

## If you're disabled, what happens to your earning power?

Think how an unexpected accident or illness could halt your income at any moment . . . and you'll realize how important **Disability Income Insurance** can be. Your Oklahoma State Medical Association sponsors an excellent group program which provides up to **\$500 a week** in benefits — benefits designed to help you and your family through periods of health and economic uncertainty — benefits of steady, continuing income!

The OSMA also sponsors companion programs to further meet your economic needs should an accident or illness strike . . . they are the **Overhead Expense Insurance, Full-Time Accident Insurance** and no-hassle **Hospital Indemnity Insurance** plans, all offering high-benefit, low-cost coverages which are only available through group arrangements of this type. For full particulars, contact Don Lanier at . . .

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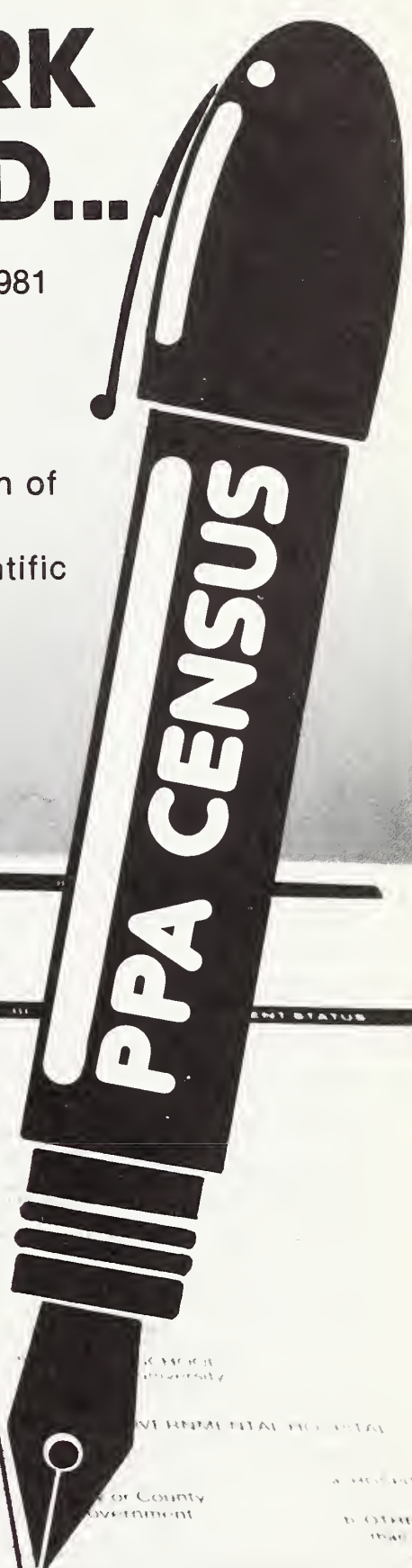
# MAKE YOUR MARK AND BE COUNTED...

If you haven't already, now is the time to complete the 1981 Census of Physicians' Professional Activities.

Doing so will assure:

- that your official record is updated
- that you are accurately represented in the 28th Edition of the *American Medical Directory*
- that you continue to receive the educational and scientific materials relevant to your professional interests

Call or write if you have not received a census form  
Division of Survey & Data Resources  
American Medical Association  
535 North Dearborn Street  
Chicago, Illinois 60610  
312-751-6435



**1. How many hours per week do you spend on DIRECT CARE of Patients?**

**2. How many hours per week do you spend on ADMINISTRATIVE ACTIVITIES as a Salaried Staff Member or Executive of an Organization?**

**3. How many hours per week do you spend on MEDICAL TEACHING?**

**4. How many hours per week do you spend on MEDICAL RESEARCH?**

**5. How many hours per week do you spend on other medical activities (not listed above) involving DIRECT CARE OF PATIENTS?**

**6. How many hours per week do you spend on OTHER MEDICAL ACTIVITIES (not listed above) not involving care of patients?**

**About how many hours per week do you spend in ALL PROFESSIONAL ACTIVITIES? For Residents, this is the total of questions 1, 6 and 7. For all other physicians this is the total of questions 2 - 7.**

**the TOTAL in question 8 above is 20 hours or less. Please answer question 9**

**you:**

Retired ☐ Semi-retired ☐ Permanently Disabled ☐ Temporarily not in practice ☐ Not active for other reasons (please describe) \_\_\_\_\_

**10**

**7. How many hours per week do you spend in ALL PROFESSIONAL ACTIVITIES? For Residents, this is the total of questions 1, 6 and 7. For all other physicians this is the total of questions 2 - 7.**

**8. State Government**

**9. U.S. Government**

**10. OTHER ORGANIZATION**

**Indicate Federal Agency**

1 ☐ Army 2 ☐ Navy 3 ☐ Air Force 4 ☐ Veterans Administration 5 ☐ Other

**Total of Section I equivalent to total of Section II and total of Section III, respectively**



## IN MEMORIAM

## 1980

<i>Elton W. LeHew, MD</i>	<i>May 3</i>
<i>C. W. Arrendell, MD</i>	<i>May 6</i>
<i>Edward A. Abernethy, MD</i>	<i>May 9</i>
<i>William F. Thomas, Jr., MD</i>	<i>May 17</i>
<i>Robert C. Lawson, MD</i>	<i>May 17</i>
<i>Robert L. Lembke, MD</i>	<i>June</i>
<i>Joseph Fulcher, MD</i>	<i>July 2</i>
<i>Emmett O. Martin, MD</i>	<i>July 15</i>
<i>James R. Colvert, MD</i>	<i>July 22</i>
<i>Thomas J. Hardman, MD</i>	<i>July 24</i>
<i>Kelly M. West, MD</i>	<i>July 28</i>
<i>Tom S. Gafford, MD</i>	<i>August 4</i>
<i>Joseph J. Swan, MD</i>	<i>August 25</i>
<i>Milton J. Serwer, MD</i>	<i>August 28</i>
<i>Henry B. Jenkins, MD</i>	<i>August 28</i>
<i>I. F. Stephenson, MD</i>	<i>September 7</i>
<i>Emory E. Beechwood, MD</i>	<i>September 9</i>
<i>Paul B. Champlin, MD</i>	<i>September 17</i>
<i>Bernard Brock, MD</i>	<i>September 25</i>
<i>Lee Pullen, MD</i>	<i>October 6</i>
<i>Walter E. Sethney, MD</i>	<i>October 14</i>
<i>Ralph R. Nepveaux, MD</i>	<i>October 19</i>
<i>John M. Parrish, MD</i>	<i>November 8</i>
<i>Franklin D. Sinclair, MD</i>	<i>November 16</i>
<i>Henry K. Speed, MD</i>	<i>November 17</i>
<i>Joel T. Woodburn, MD</i>	<i>November 18</i>
<i>Frank R. Viereg, MD</i>	<i>December 6</i>
<i>Robert C. Bowers, MD</i>	<i>December 31</i>

## 1981

<i>Athol L. Frew, Jr., DDS, MD</i>	<i>January 1</i>
<i>William R. Morris, MD</i>	<i>January 17</i>
<i>Geoffrey Kelham, MD</i>	<i>January 27</i>
<i>Charles G. Stuard, MD</i>	<i>January 30</i>
<i>Fred S. Watson, MD</i>	<i>February 3</i>
<i>Robert J. Terrill, MD</i>	<i>February 16</i>
<i>David J. Tomko, MD</i>	<i>March 4</i>
<i>Eugene F. Lester, Jr., MD</i>	<i>March 16</i>
<i>J. Samuel Binkley, MD</i>	<i>March 16</i>

## DEATH

J. SAMUEL BINKLEY, MD  
1908-1981

J. Samuel Binkley, MD, 73, a founder of the American Cancer Society and Oklahoma City surgeon and oncologist, died March 16, 1981. Doctor Binkley was a native of Guymon, Oklahoma and was graduated from Harvard Medical School in 1932. Following practice in California, he established his practice in Oklahoma City. Doctor Binkley was the first medical director of the American Society for the Control of Cancer, a member of the American College of Surgeons, the Radiological Society of North America, the American Radium Society, a Phi Beta Kappa and a Life Member of the OSMA. □

### Regents Approve Standard Health Form

The Oklahoma State Board of Regents for Higher Education has adopted a standardized form for reporting medical histories and physician examinations of state college and university students.

Colleges and universities have required students to apply for admission with evidence of good health attested by a physician. But most schools in the state have developed individual health standards and reporting forms for medical histories and physical examinations. Consequently, many students who transfer within the state from one school to another must have new physical examinations and complete other medical history forms to comply with the different requirements of other schools. This process has frustrated many doctors because it places time-consuming and unnecessary burdens on examining physicians and creates additional expense for students.

In 1976 the Oklahoma State Medical Association adopted a resolution which requested that a standardized form for physical examinations and medical histories be established by the Oklahoma State Board of Regents for Higher Education. However, no action was taken until last fall when the regents permitted Thurman Shuller, MD, McAlester, to explain the existing problems and how they could be eliminated with standar-



dized forms. Doctor Shuller has been trying to promote the development of standardized forms for several years. In September the regents appointed a special committee to determine which standardized forms should be used and in December the committee selected the forms which are presented here. □

STUDENT HEALTH SERVICE  
(College or University)

OKLAHOMA HIGHER EDUCATION

MEDICAL HISTORY

Student History  
Physical Examination  
Standard Form SR-60

(To be completed by student prior to physical examination)

Name (last) (first) (middle) Age Sex

College Fr Soph Jr Sr Uncl Grad Date of Birth

School address Phone

Parent Guardian Spouse Phone

Permanent address

Hospital or Medical Care Insurance

1. Relationship

Age

State of Health

If Dead, Cause of Death

Age at Death

1. Father

2. Mother

3. Spouse

4. Brothers and Sisters

5. Children

2. Has any parent, brother or sister had any serious illness? Yes No  
(If yes, please list relative and illness)

3. Have you ever had or do you now have any serious medical or mental illness? Yes No  
(If yes, please list illness and age of occurrence)

4. Have you ever had any operation? Yes No  
(If yes, describe and give age at which occurred)

5. Are you allergic to any medications? Yes No  
(If yes, list medications)

Note: Upon written request, a copy of this form may be forwarded to Health Services of another institution upon transfer.

DATE SIGNATURE OF STUDENT

PHYSICAL EXAMINATION

(Completes other side first)

Name (last) (first) (middle) Date

MEASUREMENTS AND OTHER FINDINGS

5. Height 7. Weight 8. Color Hair 9. Color Eyes 10. Build slender medium heavy obese

11. Blood Pressure 12. Pulse 13. Vision 14. Hearing

CLINICAL EVALUATION

Normal Abnormal

15. Head

16. Ears (general)

17. Eyes (general)

18. Nose

19. Oropharynx

20. Neck

21. Lungs

22. Heart

23. Breast

24. Abdomen

25. Genitals

26. Musculoskeletal

27. Neurological

28. Psychiatric

NOTES — Describe every abnormality in detail. (Enter pertinent number before each comment; continue and use additional sheets if necessary.)

LABORATORY FINDINGS

29. Urinalysis (required) Albumin Sugar Microscopic

30. Hematocrit or Hemoglobin (women)

31. TB Skin Test (Tine or PPD)

32. Results of other pertinent laboratory tests and x-rays

IMMUNIZATION HISTORY

33. Polio Initial Series Most Recent Booster

34. Tetanus

35. Other immunizations — Date

36. Other information or comments

36. Do you consider this person in satisfactory health to pursue his or her studies? Yes No

MAIL DIRECTLY TO: (COLLEGE OR UNIVERSITY TO WHICH STUDENT IS APPLYING)

SIGNED: (Name typed or printed)

## ASIM Acts Against Federal Health Planning System

The American Society of Internal Medicine (ASIM) has announced that it will support repeal of the National Health Planning and Resources Development Act of 1974 and its subsequent amendments. In addition, the society has revised its current policy on Certificate-Of-Need (CON) requirements.

ASIM calls the federally-controlled health planning system flawed and ultimately unworkable. ASIM supports voluntary, local community-based health planning with jurisdictions to be defined by the needs of the local community.

The president of the society said that after six years, it is now apparent that federally controlled health planning has failed in several areas. He said it has failed to achieve its goals, it has impaired the abilities of local communities to determine their own needs, it has failed to effect any real cost savings and it has failed to improve the quality of, or access to, health services. He also said the current health planning system has stifled physician participation which the ASIM president says is an essential ingredient for effective health planning.

ASIM has also revised its policy on CON requirements to eliminate such requirements for private physicians' offices. According to ASIM the requirements have failed to meet the objectives for which they were established particularly that CON requirements have not controlled unnecessary institutional expansion or saved money. □

## Oklahoma State Urological Association To Meet

The Annual Meeting of the Oklahoma State Urological Association will be held on May 29-30, 1981, at Shangri-La Lodge, Afton, Oklahoma. Guest speaker for this year's meeting will be Dr Lester Perskey, Western Reserve University, Cleveland, Ohio.

For additional information contact, Johnny B. Roy, MD, president, Oklahoma State Urological Association, 405 272-9876, Ext. 256. □

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## Book Reviews

**The Prevalence of Illness in Childhood. A Report of the British Births Child Study into Illnesses and Hospital Experiences of Children During the First Three and a Half Years of Life.** by R. N. Chamberlain and R. N. Simpson. Kent, England: Pitman Medical Publishing Co. Ltd. 1979. 142 pages, tables and graphs and illustrations.

In 1970 the British Birth Survey was carried out in the United Kingdom under the joint auspices of the National Birthday Trust Fund of the Royal College of Obstetricians and Gynecologists. The events which occur during the first seven days of life in a cohort of babies during one week in England, Wales, Scotland, and Northern Ireland were recorded. This was subsequently published (*British Births, 1970*). *The Prevalence of Illness in Childhood* continues the story for a sample of these children and describes their hospital experiences, their illnesses, and the social and environmental factors affecting their health.

The British Births Child Study was devised to assess the effect of fetal malnutrition and that of a number of social, biological, maternal, and neonatal factors occurring before, during and after birth and the subsequent physical and mental progress of babies. The British Birth Survey took place throughout the United Kingdom, during the week beginning 5 April, 1970 and from this a sample was taken and the children traced and examined at the ages of 22 months and 3½ years. Three reports on their physical and mental progress have been published.

The survey provides an overall but nevertheless detailed look. Thus, during the first month of life one of every sixteen infants is separated from its mother because one or the other is in the hospital, and by the age of 3½ years, one of every two children has attended a hospital for an illness or an accident. The detection and treatment of handicapping conditions is a major part of child health care, but screening programs are shown not to be fulfilling their entire function.

The book is divided into ten chapters dealing with such problems as infectious diseases, respiratory diseases, accidents, congenital malformations, and other groups of disorders.

There is a chapter entitled "The Use of Hospital Services" and the final chapter deals with recommendations.

Family circumstances were shown to affect the prevalence of illness among the children. Thus, children of mothers who smoke are more likely to get respiratory infections, those from large families are more likely to contract infectious diseases, and those whose mothers are out of the home are more likely to have accidents.

This book will be of value to all concerned with the care of children, including physicians, nurses, and other health personnel in hospitals, in practice and in community health work. It is particularly pertinent to those who are concerned with the planning of child health services. *Harris D. Riley, Jr., MD*

**The Family — Can It Be Saved?** Edited by V. C. Vaughan, MD and T. B. Brazelton, MD, Yearbook Medical Publishers, Inc. Chicago, 1979, 316 pages.

This volume is based on papers presented at a recent symposium held in Philadelphia under sponsorship of St Christopher's Hospital for Children and the Department of Pediatrics of Temple University School of Medicine, Children's Medical Center of Boston and the Department of Pediatrics, Harvard Medical School. The title was chosen because it was felt to address an area of major concern in today's world and to be attractive to a wide group of professionals concerned with the problem. There were 31 participants in the symposium representing pediatricians, obstetricians, psychiatrists, developmental psychologists, educators, sociologists, anthropologists and representatives of such other areas as the media, city-planning and law.

The book is divided into seven major sections following an introduction by Uri Bronfenbrenner titled "Who Cares for America's Children?" In the first section, "Symptoms of Malaise in our Society," there are discussions of the role and influence of television in the family, new perspectives on violence, youth and a changing society. Other topics include discussion of stability of the family in a transient society, father-child relationships, parent-to-infant attachment, effects of chronic illness and the relationship of courts and welfare agencies to family needs. The proceedings end with an ex-



## Crazy Imagination

Occasionally my imagination takes off on wild flights and frequently the wildest flights of all occur during my contemplation of the breath-taking satisfaction I would derive from dealing with the federal government in the same fashion it deals with me.

For example, I would like to notify the district director of the Internal Revenue Service (IRS) that I would pay only 80% of what I discovered was the "prevailing" average tax payment among my neighbors, an amount which I considered "reasonable." In the event that the district director was not happy with this arrangement, I would notify my congressman that the district director had "refused to accept the reasonable fee on assignment" and that I was, therefore, sending my check to him so that he could pay the IRS whatever I owed — if and when he could get around to it. In case the IRS accepted my direct payment, it would automatically forfeit all rights to collect another penny from me. Of course, there would be a 60-to-180-day delay in my payment, to allow for "processing" the IRS claim, and I would pay no interest or penalty for my lack of promptness. And, if the federal government spent more or less money than it estimated it would at the beginning of its fiscal year, I would withhold an appropriate "penalty" from my next year's tax payment.

As I live in a larger city than do many of my colleagues, I would expect proportionately larger payments in tax refunds and social security benefits to compensate me for my "relatively higher cost of living and doing business."

Also, in the event the social security funds are exhausted when I retire, surely I will not be criticized when I apply a tax lien against a navy battleship or an Air Force jet and sue the federal government for selling fraudulent securities.

I would create a Federal Demagoguery Authority, sort of an FDA for bureaucrats, which could eliminate all governmental agencies which failed to provide proof of effectiveness. A Politicians Standard Review Organization would function as a PSRO for all elected and appointed officials which could summarily suspend payment of salaries to everyone whose performance failed to meet my predetermined standards. Politicare could be set up to provide payment for politicians who represent constituents unable to pay the "usual and reasonable fee" for their representation. And I could lower the maximum allowable fee at any time the costs of the program exceeded my estimate.

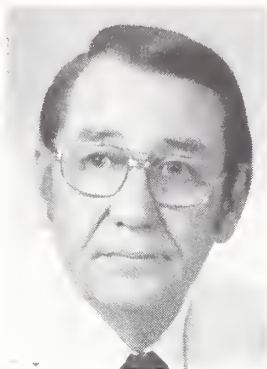
I could be almost sanctimonious in defending the propriety of these actions. I would cite such aphorisms as "Do unto others . . .", and "An eye for an eye . . .", and "What's sauce for the goose . . .". I have seen my federal government engage in price-fixing, free-trade restraints, monopolistic practices, capricious enforcement and illegal wars. I understand, vaguely, the constitutional rights of governments to exercise such privileged powers, but the understanding doesn't make the swallowing any easier or the taste more palatable.

I realize it's absolutely crazy to imagine that I could do any of these things to the federal bureaucracy. But lots of crazy things have happened to me that I could never have imagined. Even in my craziest moments. MRJ

Sometimes among established associations there is a tendency to overlook the importance of the annual meeting. The annual meeting is what gives continuity to the activities of an association and provides it with established goals. It is normally the first function of an association as well as its last. OSMA's Annual Meeting was held last month at Shangri-La Resort and it seems appropriate to discuss some of the important decisions which were reached.

Perhaps the most important decision was the selection of officers who will lead the association this year and for years to come. I am both pleased and relieved to report that the House of Delegates selected an outstanding group of physicians. OSMA Officers for 1981-82 are: John A. McIntyre, MD, Enid, President-Elect; Floyd F. Miller, MD, Tulsa, Immediate Past-President; George Kamp, MD, Tulsa, Vice-President; Armond H. Start, MD, Oklahoma City, Secretary-Treasurer; Larry Long, MD, Oklahoma City, Speaker of the House of Delegates; Robert G. Perryman, MD, Tulsa, Vice-Speaker of the House of Delegates; Elvin Amen, MD, Bartlesville, Chairman of the Board; Ray V. McIntyre, MD, Kingfisher, Vice-Chairman of the Board. Ed Calhoon, MD, was reelected as a Delegate to the AMA and James B. Eskridge, III, MD, was reelected as an Alternate Delegate.

In addition to an outstanding scientific program, a number of very important business items were acted upon during the meeting. All of us are aware that a severe shortage of nurses exists nationwide and this is one of the items which received the attention of our House of Delegates. Three resolutions were submitted for consideration, two of which received the approval of the House. The first instructs



OSMA to support all levels of nursing education and a second requests that the Oklahoma Nurses Association withdraw support for any plan which would require a baccalaureate degree in order to become a nurse. A third resolution supporting diploma nursing schools was defeated.

A less-publicized shortage of psychiatrists also exists and received the attention of our House of Delegates. A resolution from our Council on Public and Mental Health was approved, pledging OSMA's support to efforts to solve this problem and calling upon the AMA to study the national shortage.

Another important matter for each OSMA member involves the dues we pay to organized medicine. OSMA dues were last adjusted in 1978 to \$180 per year. This is below the national median, primarily because our association has been able to supplement its income in other ways. In order to insure our financial stability, the House of Delegates approved a dues increase to \$210 per year, which will go into effect in January, 1982. Even with the dues increase, OSMA dues will remain below the 1981 national median of \$220. Our association currently ranks 39th in the overall dues structure.

I personally am very impressed with the variety of business items considered at our annual meeting and the prudent decisions reached by our House. Our association is an excellent example of democracy in action and I can assure you that the men and women you have selected to serve as members of our House of Delegates have fulfilled their responsibilities exceedingly well. A complete review of the 1981 annual meeting can be found in the May issue of *OSMA NEWS* and copies of all business items and reports will be printed in the August issue of the *OSMA Journal*.

A handwritten signature in dark ink, appearing to read "J. B. Pitt". The signature is stylized with a large, looped initial "J" and a trailing flourish.



# Temporomandibular Joint Arthrography in The Diagnosis of Internal Derangements of the Temporomandibular Joint

MICHAEL T. DUFFY, DDS  
RALF E. TAUPMANN, MD

*Seventy per cent of the temporomandibular joint problems (TMJ) are related to internal derangements of the TMJ. TMJ arthrography permits an accurate diagnosis of the internal workings of the TMJ.*

Internal derangements of the temporomandibular joint are commonly characterized by headaches, and can mimic numerous other entities. The diagnosis of internal derangements can be frustrating and difficult. The advent of temporomandibular joint arthrography permits an accurate study of the position and integrity of the disc in relation to the head of the condyle. This greatly aids the diagnostician in deciding when surgical intervention is required. The procedure is effective and safe but technically difficult to perform.

Internal derangements and dysfunctions of the temporomandibular joint accounts for about 70% of the patients seen with tem-

poromandibular joint symptoms.<sup>1</sup> These patients frequently present with ear pain, joint noise on opening and closing the mouth, headaches (the most common symptom), pain behind the eye, and neck pain. The diagnosis is extremely difficult to make due to the complex anatomy of the temporomandibular joint, the complex neurophysiology, the complex movements of the paired joints, the wide range of normal condylar anatomy, and the various diseases it can resemble.

In the past the majority of therapy has been directed toward the underlying muscle spasm as the cause of the temporomandibular joint pain.<sup>2</sup> The possibility of an internal derangement of the relationship between the disc and the condyle had not been greatly explored. A possible organic cause has now been offered, and with the recent development of arthrography, a great deal of evidence has been collected to support the disc-condyle relationship as etiologic.

## ETIOLOGY

The cause of temporomandibular joint dysfunction can be attributed to a number of entities. Occlusal irregularities in the bite, loose capsule ligaments, trauma, both accidental and iatrogenic.

## PATHOPHYSIOLOGY

The literature and observations during a number of years have shown the majority of the derangements result in anterior dislocation of the disc.<sup>3</sup> The condyle having been displaced posteriorly in the fossa results in the disc being displaced anteriorly. The disc can then move in an anterior-posterior direction in the fossa which results in the joint noise (clicking and popping) heard in the opening and closing movements of the jaw. The click can be classified as occurring early, intermediate or late in the opening cycle. The earlier the click occurs in the opening movement, the longer the disc is in a normal position during the opening cycle. The later the click occurs, the shorter the time the disc is in a normal position during the opening cycle. Starting from the closed position, the disc is displaced anteriorly then repositioned sometime during the opening cycle. For every opening click there is generally a closing click, sometimes not audible, which results in the disc being displaced anteriorly. The cycle, if allowed to continue for a prolonged period of time, will ultimately lead to degenerative arthritic changes in the head of the condyle. Repeated trauma to the posterior attachment of the disc can lead to a locking of the disc anteriorly and/or perforation of the posterior attachment.

## HISTORY

The first reference we see of the clinical use

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of arthrography was in Norgaard's reports in 1944, 1947,<sup>4</sup> which described some of the technical and interpretative innovations. The modern temporomandibular joint arthrography can be traced to Clyde Wilks<sup>5</sup> who eventually in 1978 described the diagnostic features of modern temporomandibular joint arthrography. This has been modified by McCarty and Farrar<sup>6</sup> and is basically the technique that is being employed in our practice today.

The basic objective of arthrography is to opacify the synovial space so that subsequent radiographs can provide images of the articular disc and its attachment. The procedure is performed by insertion of a needle or catheter into the joint space under fluoroscopic guidance. Radiographs follow with the articulating members of the joint in various stages of opening and closing. The procedure can provide diagnostic information regarding the articular disc that is obtainable in no other way except by direct surgical inspection. This includes the precise position of the disc relative to the condyle with the jaws closed, in various stages of opening, and in particular at points of joint clicking, popping or locking.<sup>7</sup> The morphologic structure of the disc and the presence of tears, perforations, or adhesions of the disc or the posterior attachment can be seen. The examination properly performed appears to be safe. There is very little risk of infection if the procedure is performed with an aseptic technique. We have not experienced any episodes of serious or long-term complications from performance of temporomandibular joint arthrograms. A transient anesthesia of the seventh nerve following injection of the local anesthetic is sometimes noted.

## TECHNIQUE

The patient is placed in a lateral decubitus position with the side of interest up. The head is so positioned on a small wedge-shaped sponge that the upper temporomandibular joint projects over the middle fossa with the mastoid air cells out of the way. Four coned-down scout films are taken on an 18 x 24 centimeter film (four on one) varying the technique from 65 to 100KvP with 25 MAS being constant, a small 0.6 mm focal spot is utilized.

The area anterior to the external auditory meatus is prepped and draped with a disposable eye drape (Steri-Drape #1020 3M Company) opening 6.3 cm.



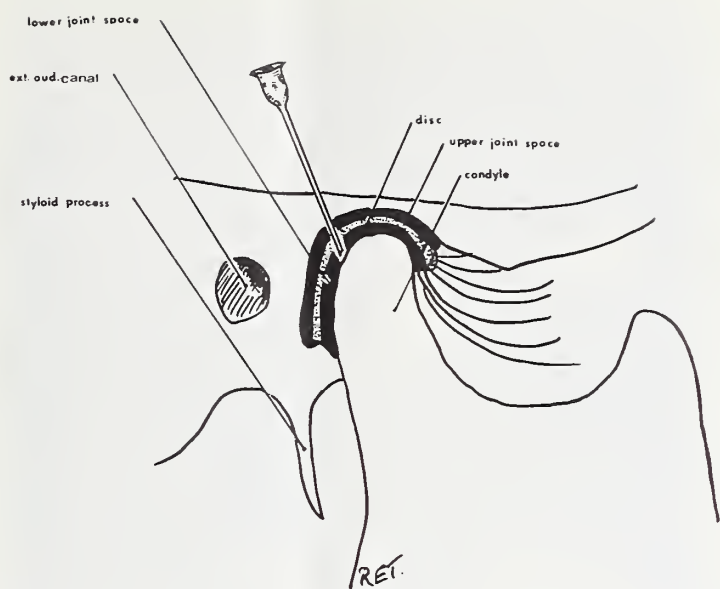


Figure 1

#### JOINT SPACE INJECTION

One percent xylocaine is used for local anesthesia for the skin over the temporomandibular joint. Fluoroscopic guidance is extremely helpful for correct placement of the needle (22 gauge, 2.5 cm. angiocath teflon sheath over steel stylet) into the joint space (see Fig. 1) is at approximately the 11 o'clock position superior posteriorly to the mandibular condyle. Intermittent fluoroscopic observation should be used to direct the needle just tangential to the surface of the mandibular condyle. When the condyle is encountered, the patient is asked to open wide and the needle is then further advanced.

Movement of the needle behind the condyle is usually deemed a successful placement; the needle should move with the condyle. The steel stylet is then removed and a test injection of 0.1 ml to 0.5 ml is made with Reno M-60 (diatrizoate meglumine 282mg/ml bound iodine, Squibb). If no extravastion is observed, an additional amount less than 1 ml is injected. Four-on-one films are immediately obtained in various degrees of open and closed positions for evaluation of the joint space and position of the disc. We have found it helpful to record the motion on videotape for replay later.

#### INTERPRETATION

In order to interpret the disc-condyle relationship on arthrogram it is necessary to review briefly the anatomy of the disc and the joint. (Fig 2) The disc is a fibrocartilaginous type material which is considerably thinner in

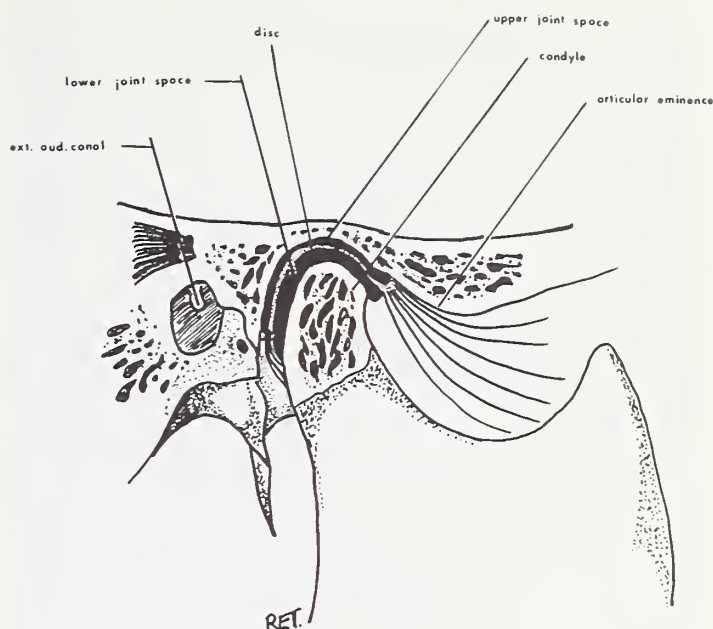


Figure 2

the central area than at its periphery. The upper surface adapts to the contour of the articular eminence of the temporal bone and is saddle-shaped, concave anterior-posteriorly, and convex mediolaterally. The lower surface is a concave oval with its mediolateral axis adapting to the shape of the condylar head. The posterior attachment is a specialized zone of fibrovascular connective tissue with laminar elastic and collagenous tissue. The elastic characteristics are responsible for the ability of the disc to be displaced anteriorly. Stretching of the posterior attachment causes tension with a recoil effect on release. In the patient with an anterior disc displacement the posterior attachment may be thin, loose and inelastic. Laterally and medially the disc is attached to the superior head of the lateral pterygoid muscle.

#### FINDINGS

In presenting our findings, we have decided to use the terminology accepted by the Sixth Annual Temporomandibular Joint Research Seminar in Chicago in July, 1979.<sup>8</sup> We will, for discussion's sake, use the classifications of normal meniscus, meniscus displacement with reduction, meniscus displacement without reduction, perforation, and tenting.

#### NORMAL MENISCUS (FIG 3)

In a normal closed-mouth position the lower joint space is widest anteriorly and there is a small teardrop anterior recess directed some-





Figure 3. Normal Arthrograph. Notice lack of contrast material anterior to the condyle (C), and the typical bell-shaped curve in the open view. EAM is the external auditory meatus in all views.

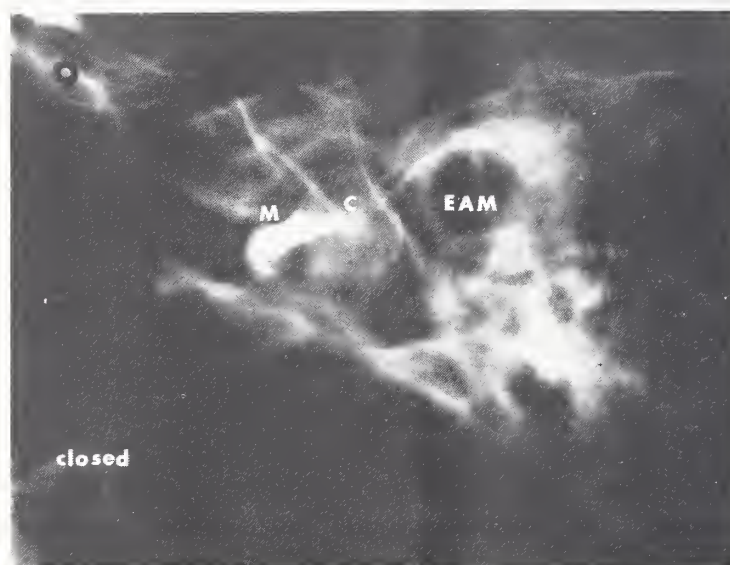
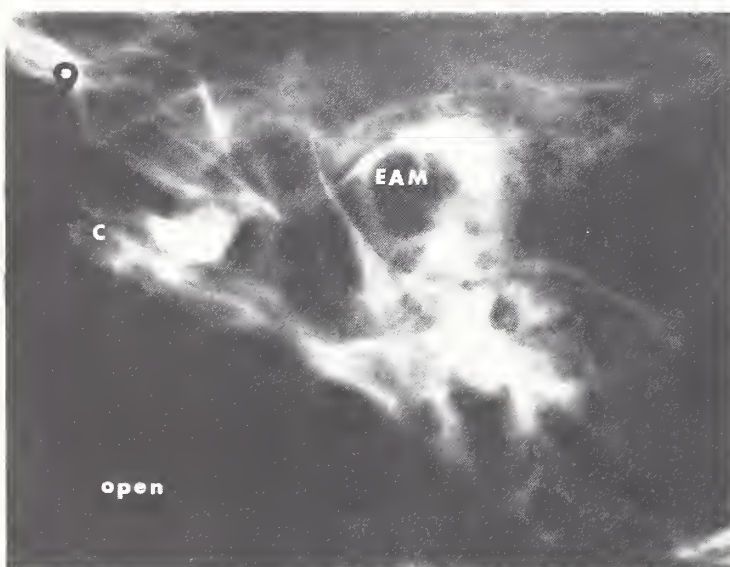


Figure 4. Meniscus with Reduction. It is important to review a series of films at various stages of the opening cycle to determine when the disc returns to its normal position. Note in the closed position the meniscus (M). It is dislocated anterior to the condyle (C) and in the open position again no contrast material anteriorly, therefore the disc has returned to its normal position.

what downward. On opening, the head of the condyle translates forward along with the meniscus. The contrast material is displaced posteriorly to form the characteristic bell-shaped curve. Little to no contrast material remains anteriorly in the open-mouth position.

#### MENISCUS DISPLACEMENT WITH REDUCTION (FIG 4)

In the closed-mouth position, the disc is displaced anteriorly to the condyle and a large amount of contrast material is located anteriorly and the teardrop lower joint space is

larger and more horizontally directed than in the normal arthrograph. Sometime during the opening of the mouth, the disc is reduced into its normal anatomic position. At this point, the contrast material is displaced posteriorly and the arthrograph reverts to a normal configuration for the remainder of the opening cycle.

#### MENISCUS DISPLACEMENT WITHOUT REDUCTION (FIG 5)

In the closed position the disc is located anteriorly to condyle. The anterior joint space is



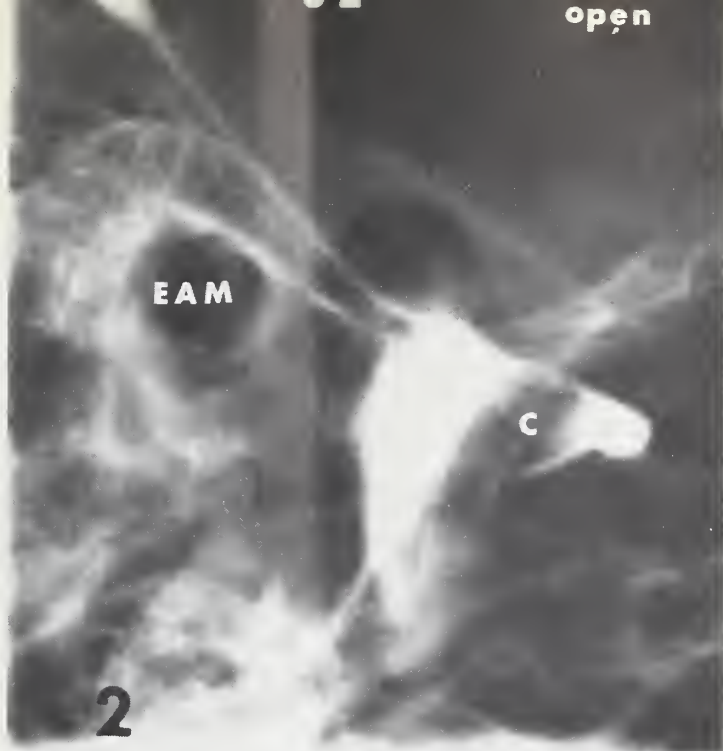


Figure 5A

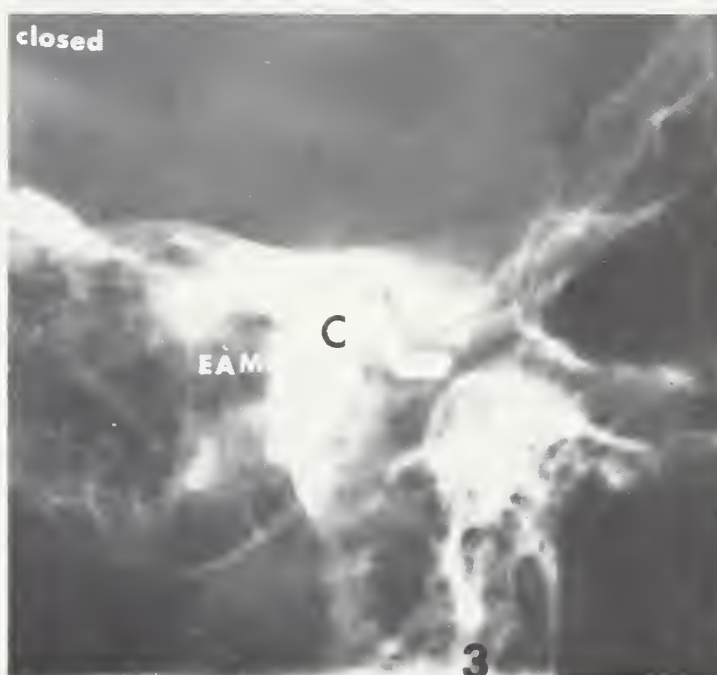
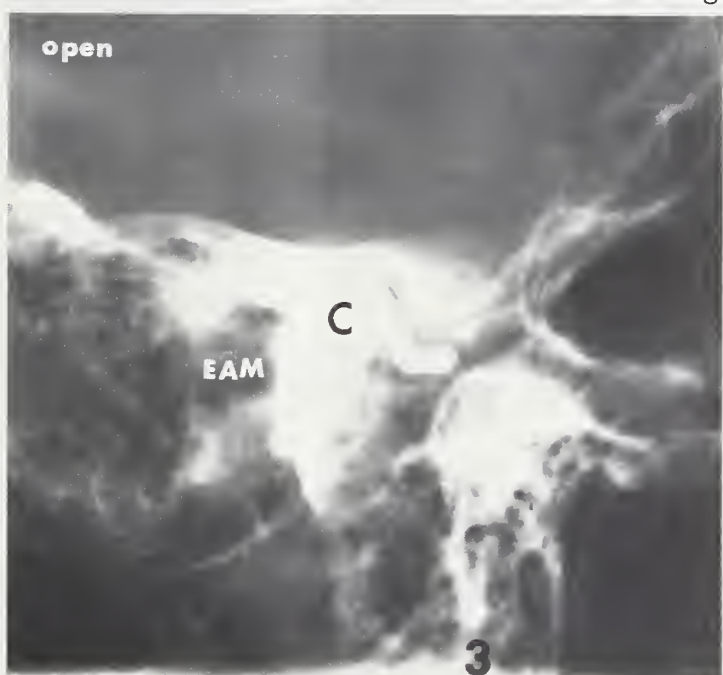


Figure 5B

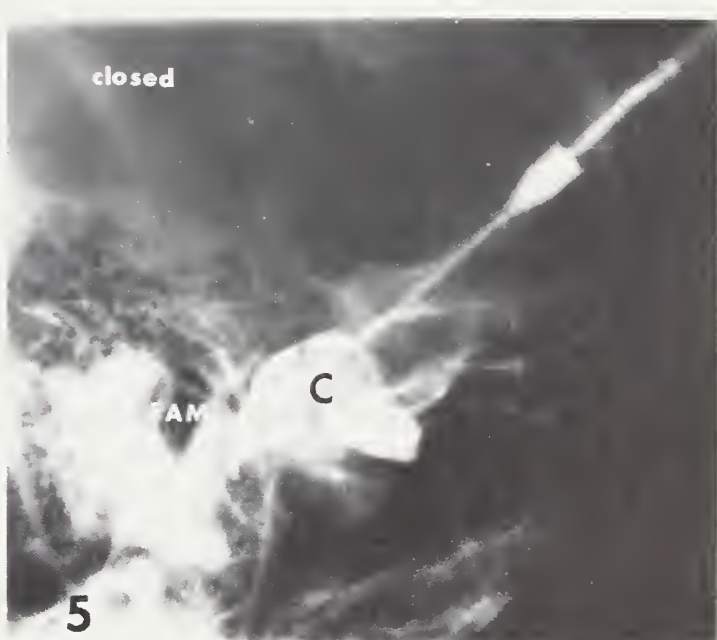
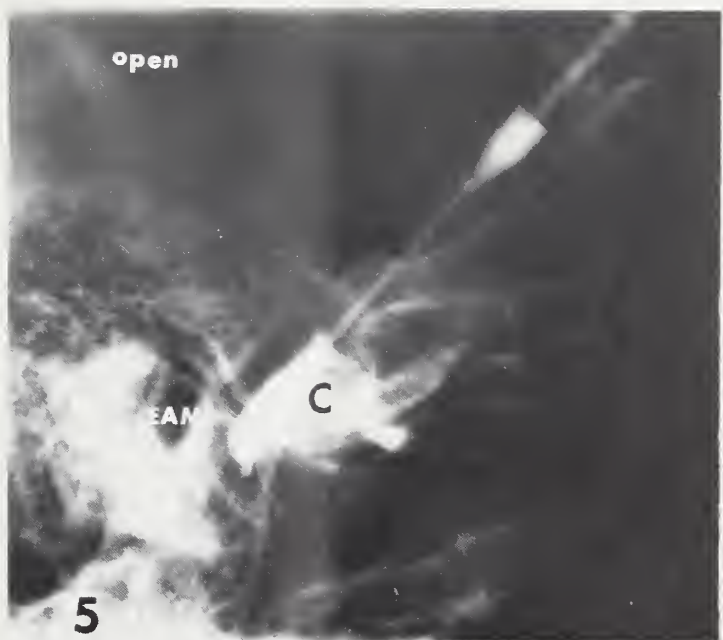


Figure 5C

Figure 5. Meniscus without Reduction. In both the closed and open views in all three patients the contrast material remains anterior to the head of the condyle (C) and the head of the condyle does not translate its normal distance. The meniscus remains anterior throughout the opening cycle which correlates with the history of inability to open the mouth secondary to the locked disc.



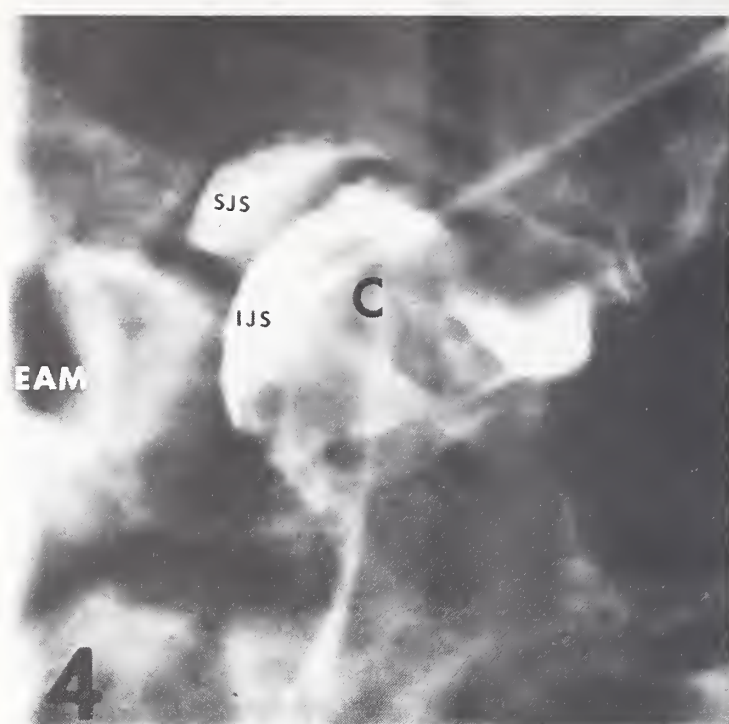
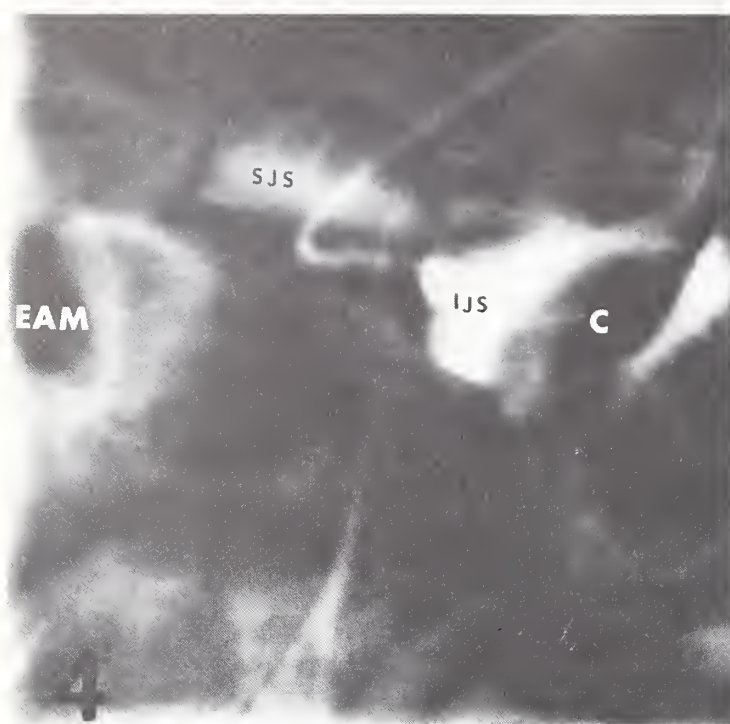


Figure 6. Perforation. The contrast material in a closed position has opacified both the inferior joint space (IJS) and the superior joint space (SJS). The disc is also dislocated anteriorly. In the open position the disc reduces and more contrast material is displaced in the superior joint space.

larger and more horizontally directed as in the meniscus displacement with reduction. With attempt to open there is restricted movement of the mandible, and the contrast material does not move posteriorly to assume the normal bell-shaped curve. The disc and contrast material remain essentially in the same position throughout the opening cycle. As the patient begins to open wider, the disc can be pushed further anteriorly.

#### PERFORATION (FIG 6)

Perforation is diagnosed by the simultaneous opacification of the upper joint space as the lower joint space is being injected. This is evident on fluoroscope at the time of the initial injection. The contrast material can be seen to move between the two compartments as the patient functions. It is possible to have an iatrogenic perforation if care is not taken during the placement of the catheter into the lower joint space and the upper joint space is thus perforated.

#### TENTING (FIG 7)

Tenting or peaking of the opacified lower joint space in the posterior attachment is seen commonly in people with excessive excursive movements. The clinical significance of this is not known at this time, but may be associated

with some disease of the joint but most commonly is associated with hypermobility.

#### ADHESIONS (FIG 8)

Intraarticular adhesions and septations can be seen on arthrography and are characterized by decreased joint volume and multiple irregularities in the joint space contour. Usually there is a history of trauma with resultant hemarthrosis with adhesions.

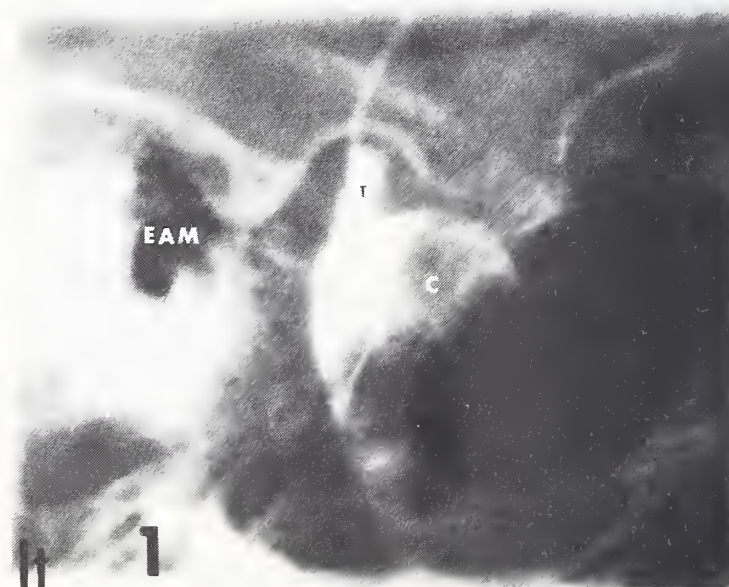


Figure 7. Tenting. Note the superior extension (T) of the contrast material in the open position. The significance at present is not understood.



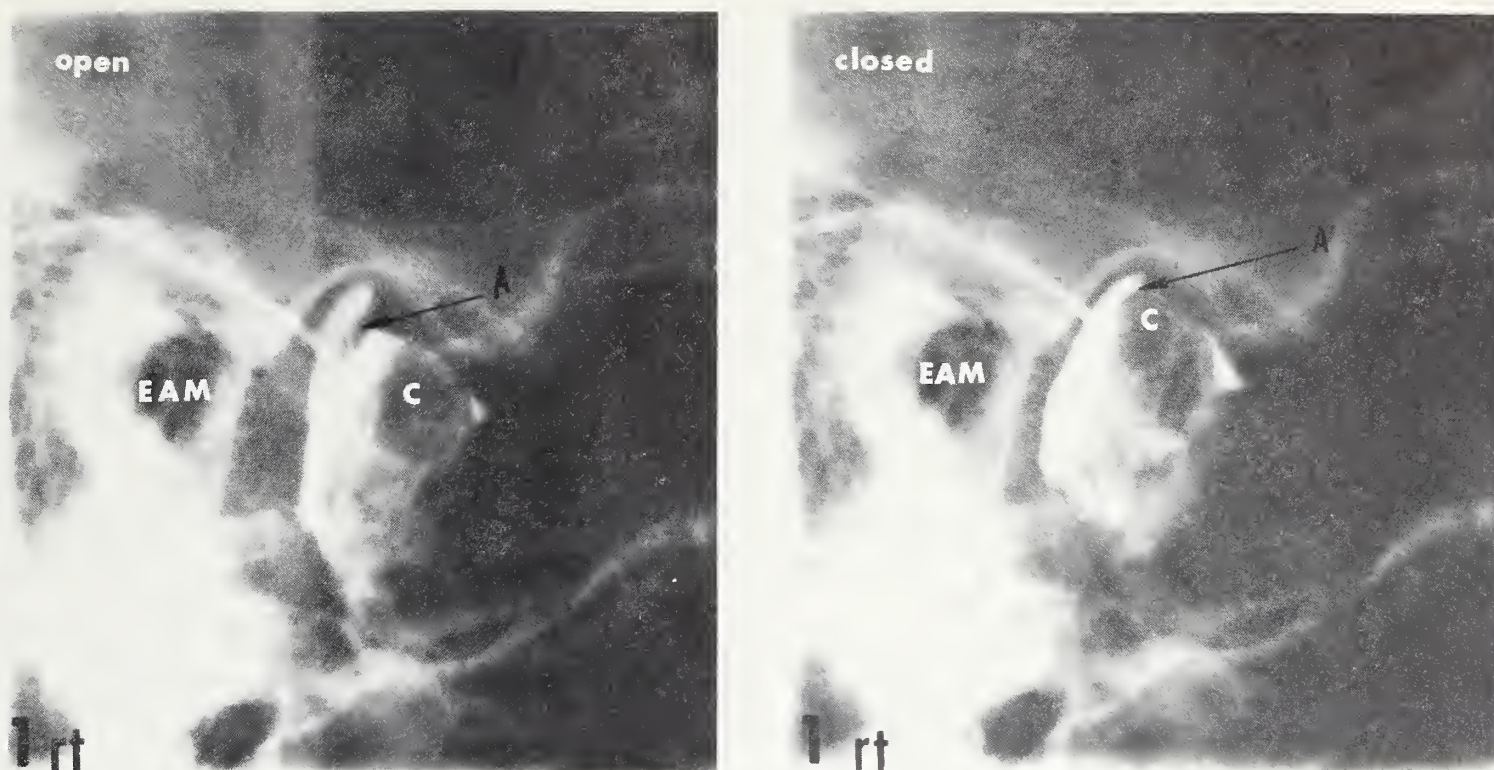


Figure 8. Adhesions. In the closed position, a normal appearing anterior joint space with a septal type appearance secondary to adhesions (arrow A). In the open position a better visualization of a septal appearance posteriorly (arrow A). This is usually associated with trauma and resultant hemarthrosis.

#### DISCUSSION

It has been our experience that arthrography has provided an invaluable step in separating the objective and subjective symptoms of temporomandibular joint disease. We have found that some cases that clinically did not exhibit symptoms of a displaced disc, on arthrography demonstrated a disc with reduction. We have also found cases that have had perforations where none were suspected.

In the evaluation of temporomandibular joint the two objective clinical signs that can be measured are clicking and popping, and limitation of movement. The clicking and popping has been seen by arthrography to be the direct result of the disc-condyle relationship. In a disc with reduction it is important to note when the click occurs. If the click occurs early in the opening cycle, the prognosis for recapturing the disc conservatively by repositioning appliance is much greater. If the click occurs late in the opening cycle, about 35mm. or greater, or if the patient exhibits reciprocal clicking (an opening click followed by a closing click that occurs near the terminus of the closing movement) the prognosis for conservative recapturing of the disc is poor, and this condition lends itself more to a surgical correction.

The etiology of the pain in these patients that have been functioning on the posterior attachment has been attributed to the articulation of the condyle and the eminence with the richly innervated posterior attachment. In many cases, external trauma to the joint is a major definable etiologic agent in temporomandibular joint disease. The trauma can be the result of a fracture of the head of the condyle and hemarthrosis. A whiplash-type injury often results in the anterior dislocation of the disc. A significant number of disc displacements can be iatrogenic. This occurs in patients who develop symptoms after intubation during general anesthesia, prolonged dental procedures, removal of wisdom teeth, following root canal therapy, etc. Therefore, it is important to keep in mind the temporomandibular joint during hyperextension of the mandible. Minor occlusal irregularities can also result in repeated internal trauma to the disc-condyle relationship and ultimately to dislocation of the disc.

In cases that have not responded to conservative therapy, preliminary surgical results have been excellent and show at least a 90% success rate in patients with early disease. There has been a remarkable correlation between the findings surgically with the findings

of arthrography. The surgical technique has been developed by McCarty<sup>9</sup> which allows resection of the elastic posterior portion of the disc and reattachment of the disc in a more anatomic position. The long term results (five years) to date have proved encouraging. It remains only to obtain postoperative arthrograms of the characteristics of the newly positioned disc.

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# Should Oklahoma Screen Newborns for Galactosemia?

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*The complications of galactosemia (ie, failure to thrive, cataracts, mental retardation and even death) can be prevented by early diagnosis and dietary manipulation.*

Classical galactosemia is a rare inborn error of galactose metabolism whose early clinical manifestations include jaundice, failure to thrive, hepatomegaly, increased intracranial pressure and susceptibility to infection often resulting in death.<sup>1-3</sup> If the infant survives but remains untreated, mental retardation, cirrhosis and cataracts become evident. The variety of clinical manifestations largely accounts for the difficulty in making an early diagnosis. The following report describes a case of classical galactosemia in a newborn infant who presented with jaundice, reviews the current status of mass screening for this disorder, and discusses the advisability of establishing a screening program in Oklahoma.

## CASE REPORT

A female infant weighing 3200 grams was delivered at term after an uncomplicated pregnancy. The early neonatal course appeared to be normal until age five days when jaundice was first noticed. Both mother and infant were blood type A+ and the direct and indirect Coombs test were negative. Urinalysis revealed trace amounts of reducing substances. Serum IgM was 18 mg/dl. VDRL was negative. Subsequently, the infant developed lethargy and vomiting. Physical examination revealed generalized hypotonia and hepatomegaly. Septicemia was suspected and antibiotics were introduced after samples for cultures of blood, cerebrospinal fluid and urine were taken. All cultures were negative. The bilirubin concentration suddenly rose to 27 mg/dl for which an exchange transfusion was performed. After the procedure and with the addition of phototherapy, bilirubin concentrations remained below 10 mg/dl and eventually returned to normal limits. Repeat urinalysis revealed 3+ reducing substances. The diagnosis of galactosemia was suspected. When a lactose-free formula was substituted for the standard milk feeding a dramatic clinical improvement resulted. No cataracts were found on an ophthalmologic examination. Galactose-1-phosphate uridyl transferase activity was ab-

sent in the patient's erythrocytes. Erythrocyte transferase activities in other family members were as follows: Mother 9.16 U/gHb, Father 11.1 U/gHb, Sibling 12.6 U/gHb, Paternal Grandmother 10.5 U/gHb, Maternal Grandmother 10.38 U/gHb, Paternal Grandfather 22.65 U/gHb and Maternal Grandfather 25.8 U/gHb. These determinations were performed at Dr Ernest Beutler's laboratory. Since mean normal transferase activity for the laboratory is 28.4 U/gHb, it is concluded that all family members tested with the exception of the paternal grandfather and the maternal grandfather are heterozygotes for galactosemia.

At age 20 months the infant remains on a lactose-free diet and is both physically and developmentally normal.

#### DISCUSSION

The established practice of testing for reducing substances in the urine of infants with severe or prolonged jaundice led to the diagnosis of classical galactosemia in our patient. A positive test coupled with a negative urine test for glucose is strong evidence of galactosemia. Unfortunately, a number of reports<sup>4-6</sup> describe cases in which the absence of galactosuria resulted in undue delay in diagnosis.

Although there are three separate inborn errors of galactose metabolism that result in increased levels of galactose in blood, the term "galactosemia" is usually reserved for defects in transferase (galactose-1-phosphate uridyl transferase) activity. The total absence of transferase activity is commonly designated "classical galactosemia." The recognition that transferase is a polymorphic enzyme has led to the recognition of several distinct genetic entities. On the basis of red cell enzyme activity, electrophoretic pattern, thermal stability and phenotypic expression, at least nine transferase variants<sup>7-14</sup> have been identified. (Table) In addition to erythrocytes, transferase is present in many other body tissues. The type and severity of the "galactosemic syndrome" in low activity transferase states depends on the level of residual activity and the universality of the deficiency state. The mild symptoms in the "Negro" type can be ascribed to significant residual transferase activity in visceral tissue.<sup>15</sup>

The toxic manifestations of classical galactosemia have been attributed to the two metabolites which accumulate as a consequence of the metabolic block: galactose-1-phosphate and galactitol. Of all the toxicity syndromes, however, only cataract formation has been satisfactorily explained.

TABLE: SUMMARY OF THE TRANSFERASE VARIANTS CHARACTERISTICS

Variant	Red cells transferase activity % of normal	Thermal Stability	Electrophoretic Pattern (compared to normal)	Clinical Manifestations
"Classical"	0		Non-detected	Severe
Negro	0 (10% in the liver and intestine)		Non-detected	Occasionally severe late manifestations.
Duarte	50%	Stable @ 50°C	Faster	None
Rennes	7-10%		Slower	Moderate to Severe
Indiana	40%	Unstable	Slower	Moderate to Severe
Los Angeles	140%		Faster	None
Berne	40%	Stable @ 40°C	Slower	None
Chicago I	25%	Stable @ 50°C	Faster	Initially mild but progressively severe.
Chicago II	113%	Labile 50°		None



Intralenticular galactitol produces water accumulation in the lens by osmotic action and consequent fiber degeneration. Although it has been assumed that a large amount of galactose-1-phosphate present in galactosemia may be responsible for the production of brain, liver and kidney toxicity syndromes, the information available is insufficient to justify this claim. Further studies are needed to clarify the biochemical basis for cellular damage in galactosemia. The treatment of classical galactosemia and clinically significant low level activity transferase states consists of a lactose-free diet.<sup>16</sup> If begun within the first week of life clinical problems can be prevented. At present a life-long low-lactose diet is recommended.<sup>17</sup> Strict galactose deprivation is important during pregnancy since the galactosemic syndrome may be present at birth and there is evidence that such a restriction is an effective preventive measure.<sup>18</sup>

#### SCREENING PROGRAMS

Newborn screening programs for conditions for which early treatment is possible have become widely accepted since the introduction of the Guthrie assay in 1962. Technological advances of recent years have made it possible to screen for an ever-increasing number of metabolic disorders. The availability of reliable tests does not *per se* justify the indiscriminate testing of the entire population. The decision to embark on any general screening program must only be made after a number of pertinent factors are critically reviewed. The incidence of the disorder in question, population, size, type and complexity of available treatment, specificity and complexity of screening

tests, stability of the sample and cost are among the factors to be considered. In the case of galactosemia the experience reported by newborn screening programs in a number of states and in several countries can be used to assess the need for such a program in Oklahoma. Pooling the results from screening programs in North America, Europe and Asia the overall incidence of classical galactosemia is 1:62,000 live births. Four screening tests have been developed over the last several years. The inhibition assay<sup>19</sup> and the Paigen<sup>20</sup> assay utilize mutant strains of *E. coli*. Inhibition or stimulation of bacterial growth is related to the concentration of galactose in the sample. The galactose dehydrogenase method relies on the spectrophotometric determination of blood eluted from paper discs. The Beutler spot test,<sup>22</sup> which has been widely used in this country, is based on a determination of enzyme activity. The most serious drawback with the Beutler method has been the frequency of false positive tests, which may be attributed to inactivation of the specimens due to adverse environmental conditions. The Paigen assay is touted as the most effective of the four screening tests currently available.<sup>23</sup> In Massachusetts the incidence of galactosemia increased from 1:187,000 to 1:40,000 when the Beutler method was replaced by the more sensitive Paigen method.

With the current concern for the spiraling costs of health care, arguments can be made against the establishment of routine newborn screening in Oklahoma. They can be summarized as follows:

1. The diagnosis can almost always be made clinically. This is a fallacious argument. The majority of galactosemic newborn infants detected by routine screening were not suspected of having the disorder even if they were ill. In addition, death secondary to bacterial sepsis may occur in 30% of untreated patients.<sup>3</sup>
2. Routine testing of urine for reducing substances can detect affected infants. Unfortunately, acutely ill galactosemic infants with gastrointestinal symptoms do not absorb galactose and therefore invalidate urine testing.
3. Considering the actual number of births in Oklahoma and the low incidence of the disease mass screening is not cost effective. This is the only valid argument. It has been recommended that this type of screening be

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performed in laboratories receiving at least 50,000 specimens per year.<sup>24</sup> Cost effectiveness has resulted in the creation of multi-state screening programs:

- (1.) The New England Regional Screening Program includes Massachusetts, Maine, and Rhode Island.
- (2.) The Rocky Mountain Screening Program includes Colorado, New Mexico and Arizona.
- (3.) Middle Atlantic Screening Program includes Maryland and Delaware.
- (4.) Northwest Regional Screening Program includes Oregon, Alaska, Nebraska, Idaho, Montana and Wyoming.

A number of other states still retain their individual programs: New York, Wisconsin, Ohio, Georgia, Connecticut, Minnesota and Illinois.<sup>25</sup>

#### CONCLUSIONS AND RECOMMENDATIONS

Galactosemia is a condition whose toxic manifestations can be avoided by a simple dietary manipulation. Early diagnosis during the first week of life is mandatory to avoid serious and even lethal complications and to minimize the risk of mental retardation. Because of the lack of a screening program in Oklahoma we recommend testing for reducing substances in the urine of all newborns after the beginning of milk feedings. If a reducing substance different from glucose is present in the urine and galactosemia is suspected, lactose-free milk feedings should be instituted. Concomitantly, blood specimens should be sent to a reference laboratory to confirm the diagnosis. A screening program in the state cannot be justified based on cost. Efforts should be made, however, to join other states in screening for disorders of galactose metabolism and other preventable inborn errors of metabolism.

We wish to thank Dr Bernard Maguire for allowing us to study this patient and Dr Ernest Beutler for performing transferase determinations.

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# Adaptation of Prepubertal Children to Exercise

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*This brief review indicates that sustained endurance training seems to produce an improvement in cardiovascular capabilities in the prepubertal athlete. Conditioning itself did not significantly alter testosterone levels and therefore probably could not hasten maturation. On the other hand growth hormone levels did increase with training bouts and may have an effect on ultimate growth.*

## A REVIEW INTRODUCTION

Organized competitive sports for children with an emphasis on statewide and national competition require extensive training programs. The purpose of this paper is to review the effects of such training on preadolescent children and the possible resultant benefits or hazards. This basic information eventually may be expanded to provide a basis for the development of conditioning programs in the young athlete.

The transition from child to adult involves profound changes in stature, maturation, work capacity, and other physiological characteristics. During these changes, participation in games and sports is readily accepted as a necessary component of healthy growth. The effect of training and competition upon preadolescents has received little attention despite the increasing emphasis on organized sports for children in this age group. Therefore, it is of interest to establish whether physical training during this period of marked growth before and during puberty can potentiate the normal development of the body and its normal capacities. For pediatric ages, ergometric and other physiological examinations are more difficult to interpret and evaluate because of individual variations in growth spurt, height and weight, and degree of maturity. In addition, functional training and motivation must be taken into consideration in assessing performance.

## PULMONARY FUNCTION

Due to the relative ease with which pulmonary function is evaluated in children, the majority of physiologic literature deals with the effects of exercise on respiratory fitness. The course of physical maturation through childhood and adolescence can be illustrated by the growth of lung volumes.<sup>1</sup> The increase in vital

capacity is correlated with the cube of the height with a general trend to higher values in boys. At a height of about 150 cm the increase in vital capacity in boys plateaus temporarily and lags behind increases in height during prepubertal growth. Then after puberty the vital capacity increases with age and height and reaches maximal values around 20-25 years of age after which age the values steadily decrease. Also, the pulmonary transfer factor, or diffusing capacity, difference between rest and maximal exercise, increases up to the age of 25 years and then decreases.

In studies on previous untrained adult individuals (20-30 yrs old) the maximal oxygen uptake increased about 15-20% after some months of physical training, but the static dimensions remained on the whole unchanged.<sup>2</sup> The same pattern was noticed in the effect of physical training in middle-aged men (38-53 yrs). Thus, it seems there might be an upper limit for development of aerobic power and static dimensions in the adult individual — a limit which may not be passed, even if the training is very long and intensive.

The question arises whether this is true with training at any age and if it is possible to increase the size of the lungs. If the effect of training in children is dependent on what age the training starts and also on the physical fitness at the beginning of the training period,<sup>3</sup> is it possible, with training, to influence the size of vital capacity changes during the pubertal growth spurt?

In one of the earliest studies performed, Ekblom<sup>2</sup> reported that six months of intense, long-duration training improved the  $\text{VO}_2$  max by 10% in previously untrained 11-year-old boys. This percentage increased to 38% with two more years of training. During the same time the vital capacity increased 54% in the training group and 34% in the reference group, exceeding all the value expectations.

These findings correspond well to many other observations, a few of which will be summarized. Brown<sup>4</sup> illustrated that normal untrained school children have shown that they have a higher aerobic capacity than adults when compared on the basis of body weight. He described the effects of a season of cross-country training upon a group of eight to thirteen year old girls. Mean  $\text{VO}_2$  max increased by 18% at six weeks and 26% at 12

weeks above pre-training values, indicating a functional adaptability in preadolescent girls to endurance training greater than in adolescents and adults.

Mayers<sup>5</sup> evaluated the elite prepubertal cross-country runner and found the  $\text{VO}_2$  max of the runners significantly higher than that of non-runners. For all subjects, mile-run times were highly correlated with percent  $\text{VO}_2$  max at all submaximal running speeds. The respiratory exchange ratio was also significantly lower for the runners than for non-runners. This indicates a greater utilization of lipid substrate in runners than in the non-runners. This is probably due to the greater oxidative potential of endurance-trained muscle tissue through increases in mitochondrial content, oxidative enzyme activity, and the enhancement of capillary growth, reducing the diffusion distance for substrate and oxygen from the capillaries to the mitochondria.<sup>6</sup> Brown also found that elite runners had a lower  $\text{VO}_2$  max than runners trained for 12 weeks. It is explained that possibly the increased oxidative capacity of local muscle tissue is more important than  $\text{VO}_2$  max during submaximal work where it contributes to *greater utilization of lipids for metabolism*, sparing glycogen and slowing its depletion. Lactate production and accumulation during prolonged exercise may also be *lower* at a given percent of  $\text{VO}_2$  max in the trained runner. Thus, intense training resulted in *peripheral adaptations* which enhanced their ability to work at submaximal loads.

*In young female swimmers age 11-16 years, it was found that many could be trained to an exceptionally high functional capacity, which was more related to the degree of training than to age and body size.*<sup>7</sup> Static lung volumes were found to be larger than normal after only a few years of training. Vital capacity increased during continued training to a significantly greater extent than expected with regard to normal growth in height. Lung volume increases at the beginning of the training period correlate well with total lung capacity and functional residual capacity. However, during continued training, there is primarily an increase in vital capacity which is disproportional to growth in height or total lung capacity. This points to functional growth rather than anatomic growth. Possible explanations could include a change in breathing patterns, or an increase in muscular strength in order to exhale forcibly.



Lussier and Buskirk<sup>8</sup> present data indicating that aerobic capacity is influenced by the type of training program and the duration of exercise. They reported increases in aerobic capacity when they used endurance running for their program. Contrary to this, and also contrary to what is observed in adults, studies that use *interval training*, or repeated bouts of high intensity effort with interspersed rest periods, have *failed to show any improvement in aerobic capacity of children*. Daniels and Oldridge<sup>9</sup> showed no increase in aerobic power in young track performers over two months of training, but no quantification of work intensity was given. Stewart and Gutin<sup>10</sup> indicated that an intense program of short-term physical training will not increase the  $\text{VO}_2$  max in children. To explain these discrepancies, they examined the nature of the training regimen (intensity, duration, frequency) in relation to the habitual level of activity of the subjects. Several studies indicate that the response to physical training is markedly influenced by the habitual activity level of the subjects; *an improvement in  $\text{VO}_2$  max is most difficult to achieve in those who have been active before training*.<sup>11</sup>

According to Shephard,<sup>12</sup> most children are naturally active and most can operate near their maximal potential of  $\text{VO}_2$  max without formal training, as the regular physical education and play activities suffice to give fitness. *Stewart and Gutin indicated that intense, short duration, short-term training was not enough of an additional stimulus to elicit improvements in  $\text{VO}_2$  max: the stresses induced by training were probably small as compared to the overall activities of the children over the eight-week period.*

All of these findings suggest that for training to be effective in increasing the  $\text{VO}_2$  max in children, *it must be of endurance type work over a prolonged period of time*. The apparently high threshold for a training effect on the  $\text{VO}_2$  max in children is probably related to their naturally active and vigorous lives.

#### CARDIOVASCULAR FUNCTION

The well-trained individual is characterized by a high  $\text{VO}_2$  max and a slow heart rate (HR) during submaximal exercise. All literature substantiates this training effect on the heart rate. The general theory is that training-induced increases in stroke volume (SV) and/or arteriovenous difference (AVD) during maxi-

mal exercise results in an increased SV and/or AVD during submaximal exercise as well. Subsequently, a given submaximal oxygen demand can be met with a slower HR. Therefore, training-induced reductions in submaximal HR should be related to improvements in  $\text{VO}_2$  max.

However, Stewart and Gutin<sup>10</sup> demonstrated that training-induced decreases in submaximal HR occurred despite no change in  $\text{VO}_2$  max, and can be attributed almost entirely to the training. As mentioned, a decrease in maximal HR after training reflects either an improved SV or a wider AVD. Maximal SV occurs at a relatively moderate intensity of exercise.<sup>13</sup> Therefore an increase in maximal SV would result in a decrease in submaximal HR. However, since  $\text{VO}_2$  max did not increase, it is not likely that max SV increased. Thus, it is more likely that the decrease in submaximal HR reflects an improved biochemical adaptation of the trained muscles. In other words, the trained muscles are able to extract and use a given amount of oxygen from a smaller blood-flow; subsequently, there might be a lower cardiac output at any level of submaximal exercise after training.

These submaximal improvements in HR may enhance cardiorespiratory fitness and endurance. HR has been shown to correlate closely with perceived exertion.<sup>14</sup> Therefore, the trained individual might accomplish a given workload with less subjective exertion and discomfort than the untrained individual. The assessment of the training effect in chil-

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dren warrants the consideration of submaximal physiological and work performance measures as well as maximal ones.

It has been shown that the absolute values for cardiac output (CO) at a given oxygen uptake in 12-14-year-old boys were 1-2 l/min lower than in adult men.<sup>15</sup> The main explanation for the lower CO in children is probably the fact that the absolute amount of blood distributed to different tissues or organs is less in persons still growing as compared to adults due to the difference in size. At rest, the cardiac index is also very similar in these boys when compared with the values for adults. There tends to be a smaller difference in CO between the two age groups during submaximal exercise. The reason for this may be that approximately the same amount of blood is distributed to the exercising muscle and skin at a given submaximal oxygen uptake, but slightly reduced to other organs such as nonexercising muscles. Thus, *the difference between youths and adults in absolute terms in the total amount of flow to these organs can only be of a minor magnitude.*

It is worth noting that children have lower blood lactate concentrations during work than full-grown persons.<sup>16</sup> Moreover, arterial pH is not reduced in children to the extent observed in adults either during submaximal or maximal exercise. This must imply a less potent Bohr effect during exercise in children, but in spite of this they exhibit a wider AVD during submaximal exercise. This may lend support to the hypothesis that relatively more of the CO during exercise is distributed to the active muscles in the children than in adults.

#### HORMONAL AND METABOLIC ADAPTATION

In the adult, testosterone, insulin, growth hormone (GH), and plasma volume are affected by maximal exercise. Typically, levels of testosterone and growth hormone increase as insulin and plasma volume decrease.<sup>17</sup> At rest, testosterone is known to increase levels of GH, stimulate erythropoiesis, and perhaps indirectly influence insulin by its effect on GH. Serum testosterone has been shown to be highly correlated to pubertal stage.

In one of the more complete studies available Fahey<sup>18</sup> examined males, 5-to-18 years old, before and after a continuous incremental work

task to voluntary cessation. Growth hormone increased as a result of exercise in all age groups, but the changes were not significantly different between groups. Significant differences existed in serum testosterone (ST) between all pubertal stages at rest and following exercise. However, pre-postexercise differences in ST were not significant, both within and between groups.

Similar results were found in 13-year-old boys following one hour endurance trainings.<sup>19</sup> During work a significant increase in plasma level of GH was found. Blood glucose did not change. A slight elevation of blood lactate could not explain GH increase. Plasma levels of glycerol increased during work, while beta-hydroxybutyric acid increased after the episode of exercise. The average free fatty acid level was unchanged but great individual differences were observed. No significant differences between pubertal boys and adults were found.

In boys, 10-11 years old,<sup>20</sup> the GH response was brisk and longlasting with a seven-to-eight-fold increase during prolonged severe exercise, and a gradual fall after work stop. Plasma glucose increased very slowly during work as insulin decreased, the greatest fall occurring during the first 20 minutes of exercise. Free fatty acids did not change during work, but rapidly increased during the first five minutes of recovery.

These results indicate that hormonal and hematological changes occurring with maximal exercise are similar during different pubertal stages. *Testosterone was significantly related to body weight and work capacity, which are in turn related to muscle development and hypertrophy. The study of Fahey<sup>18</sup> failed to identify a pubertal stage that responded maximally to a single bout of exercise.* However, the same author points out that hormone effects cannot be assessed by serum levels alone; metabolic clearance and production rates must be considered as well. Different patterns of ST production and clearance may exist in the developing adolescent male as opposed to the adult during exercise.

Astrand,<sup>20</sup> Ekblom<sup>2</sup> and Mayers<sup>5</sup> found *an apparent acceleration in growth by subjects involved in exercise training during puberty.* There are some indications that GH plays an important role for hypertrophy of the heart and other organs after exercise.<sup>21</sup> It has been stated that during growth, and following exercise,



there is an elevated concentration of the hormone in the blood. Puberty is a stage of growth when the individual is evidently sensitive to the action of GH, so it might be expected that the stimulus of repeated exercise-induced pulses of GH in the responsive pre-adolescent would enhance growth. However, evidence on this point remains conflicting, apparently due to the great difficulty in predicting the eventual height of a given individual.

#### REACTION TIME

Of interest, Fulton<sup>22</sup> described the effect of puberty on reaction and movement times. Mean reaction times improved markedly with increasing age and females tended to be consistently faster than males although females tended to level off at ages 15 to 17 years while males continued to improve. Movement times improved similarly and males were consistently faster. Strength gains continued at a rapid rate during postpubescence in males, but females leveled off at age 15 years. Strength proved to be a major factor in movement time, but reaction time seemed essentially independent of strength.

#### MENSTRUATION

It is important to mention the possibility of menstrual disturbances with exercise for some girls. Gunby<sup>23</sup> reports that girls at the age of menarche may need a body fat content of about 17% for menstruation to begin. In swimmers, it has been found that the average onset of puberty was nine months later than the national average of 12.8 years. Projects are currently attempting to elicit whether intense physical activity delays onset of puberty by reducing body fat levels. Stager and Robersshaw postulate that such athletic girls may not continue to grow when puberty is delayed, and that this may cause reproductive problems on a long-term basis. In the same article, Frisch suggest that cessation or the delay of menstruation is a protective mechanism. Mature women have between 26% and 28% body fat, regarded as stored energy for reproduction and lactation. If a woman's body lacks energy for adequate nutrition of the unborn child and for lactation, the brain apparently shuts everything off. This can be interpreted teleologically as nature's way of preventing a conception.

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William A. Grana, MD, P.O. Box 26901, Oklahoma City, Oklahoma 73190.



## News From The Oklahoma State Department of Health

Over 6,500 refugees from Vietnam, Cambodia, and Laos have settled in Oklahoma since 1975, bringing with them public health problems of significance, it was revealed in a special study recently completed by the Office of Refugee Health of the Oklahoma State Department of Health.

The department is participating in a national program, funded by the Immigration and Naturalization Service through the Public Health Service, to assist refugees in gaining economic self-sufficiency and to effectively control any public health problems associated with the refugee population.

Although incidence and prevalence rates of tuberculosis, intestinal parasites, malaria, hepatitis, and susceptibility to childhood diseases have been shown to be above comparable rates of the US population, there is no evidence of spread of communicable diseases from the refugees to the residents of the state.

All Southeast Asian refugees undergo health

screening upon arrival in the United States, and many are subsequently referred to medical resources for treatment; however, some health problems are not detected during screening or emerge after the refugees have left the point of entry into the US.

Various public agencies and religious and social organizations have worked on the refugees' behalf, but because of language, economic, or other barriers, some families have found it difficult to obtain needed medical services.

Here in Oklahoma, the dominant refugee health problems appear to be tuberculosis, internal parasites, nutrition, and malaria. Also, significant numbers of the group have been found to need family planning, prenatal and dental services, and pediatric care.

Ninety percent of the refugee population presently lives in the state's three largest cities: Oklahoma City, Tulsa, and Lawton. In each of these communities, regional centers have been set up to conduct health assessment, offer preventive services, and make referrals for problems beyond the scope of public health agencies.

In addition to assessment services, special emphasis is being placed on making the refugee families aware of the services available to them. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR MARCH, 1981

DISEASE	MARCH 1981	MARCH 1980	FEBRUARY 1981	TOTAL TO DATE	
				1981	1980
Amebiasis	2	4	—	2	9
Aseptic Meningitis	6	4	2	9	10
Brucellosis	1	2	—	1	2
Encephalitis, Infectious	2	5	3	6	5
Gonorrhea (Use Form ODH-228)	1139	996	1107	3519	3299
Hepatitis A	18	52	28	60	103
Hepatitis B	19	19	23	48	48
Hepatitis Unspecified	15	29	12	40	61
Malaria	1	4	1	2	7
Measles (Rubeola)	1	166	2	3	177
Meningococcal Infections	10	22	6	16	8
Pertussis	—	5	1	1	8
Rabies (Animal)	22	34	12	45	61
Rocky Mountain Spotted Fever	—	2	—	—	2
Rubella	—	1	—	—	1
Salmonellosis	22	8	17	64	32
Shigellosis	13	19	16	37	45
Syphilis (Use Form ODH 228)	23	5	9	46	20
Tetanus	—	—	—	—	—
Tuberculosis	30	21	13	72	70
Tularemia	1	—	—	1	—
Typhoid Fever	1	—	1	4	1



## OSMA Journal Honors Two Contributors

Two scientific contributors to *The Journal of the Oklahoma State Medical Association* were honored last month during the OSMA Annual Meeting in Shangri-La. The two Oklahoma doctors were selected by the *Journal's* Editorial Board in competition to select the best scientific papers submitted during 1980.

Winner of the first place award was Hanna A. Saadah, MD, author of "Washed Sputum Gram Stain and Culture in Pneumonia: A Practical Tool for the Clinician." Doctor Saadah received a \$500 cash prize from the Charlotte S. Leebron Memorial Trust for Scientific Excellence.

Bruce Hurt, MD, author of "Legionnaires Disease: Rapid Diagnosis by Direct Immunofluorescence of Sputum, Report of Three Sporadic Cases," was selected to receive the runner-up award. Doctor Hurt received a \$100 cash prize. The runner-up award is provided from funds received by the *Journal* in 1978 in the Sandoz Medical Journal Contest.

First place and runner-up awards will now be presented yearly to the two best scientific papers contributed to and published by *The Journal of the Oklahoma State Medical Association*. □



Hanna Saadah, MD



Bruce Hurt, MD

## AMA Proposes Educating Children About Aging

Longer life spans have caused the Program on Aging of the American Medical Association to promote further education of children about aging.

Many people are now living as long as 90 to 100 years and AMA's Program on Aging says children should be more prepared for lives that could last that long.

The AMA program recommends that children first be told the basic fact that aging is a natural process beginning at birth. The program says children should realize that their interests will shift throughout the years and that they should therefore, develop a variety of interests to serve them throughout their lives.

Other facts for children to know about aging according to AMA's Program on Aging include the fact that chronological age is the least dependable way to evaluate the capabilities of individuals and that bodily aging differs among adults at every age. The program further suggests that children know that physical characteristics are even less dependable in evaluating the capabilities of people. For example, children should know that physical characteristics such as grey hair and baldness do not always indicate feebleness.

Another point which the AMA program says should be told to children is that they could be called upon to retire much later in life than at 65 years of age. The reason for this is that the current labor force, comprised of those persons between the ages of 18 and 65 years, is beginning to dwindle. This is being caused by the co-existence of two national trends: One is the increasing life expectancy of Americans and the other is the declining birth rate. □

## OSMA Honors Reporters

The Council on Professional and Public Relations of the Oklahoma State Medical Association has honored two Oklahoma reporters for their outstanding contributions in medical reporting. The reporters were given OSMA Medical Journalism Awards at the 1981 OSMA Annual Meeting in May at Shangri-La Resort in Afton, Oklahoma.

James A. Killackey of the *Daily Oklahoman* and Cecil L. Peaden of the *Tulsa Tribune* were the recipients of these awards. Both reporters received a plaque and \$500 scholarships in their names to be contributed to the journalism

schools of their choice. Killackey donated the scholarship bearing his name to the H. H. Herbert School of Journalism and Mass Communication, University of Oklahoma, Norman. Peaden contributed the scholarship in his name to the University of Tulsa School of Journalism, Tulsa.

OSMA's Council on Professional and Public Relations does not present the OSMA Medical Journalism Award annually. It is given only when the Council determines that one or more individuals has done an outstanding job in medical reporting.

Killackey has been a medical and educational writer for the *Daily Oklahoman* since 1973. He also has been the recipient of numerous other awards including National Merit Winner, Disabled American Veterans, 1981; Newsman of the Year, Higher Education Alumni Council of Oklahoma, 1980, and others. Killackey received an AB in English from Rockhurst College in Kansas City, MO in 1970 and he obtained a MA in Journalism from the University of Oklahoma in 1973.

Peaden has worked as a medical writer for the *Tulsa Tribune* since 1979. His previous

career experiences include news bureau editor, Public Information Office, University of Louisville, KY; and instructor, Central State University, Edmond. In 1970, Peaden received a BA in journalism from the University of Oklahoma.

Past recipients of the OSMA Medical Journalism Award are Erv Watson, *Oklahoma City Times*; Jacques DeLier, KWTW; and Jack Bowen, KOCO-TV. □

## Council Acts on Several Issues

The Council on Medical Education of the Oklahoma State Medical Association (OSMA) met in April and took action on several issues.

First, the council approved an extension for full accreditation status on the continuing medical education programs of two Oklahoma hospitals. Saint Francis Hospital in Tulsa received full accreditation status for four years and Baptist Medical Center in Oklahoma City was issued full accreditation status for one year. Both hospitals will be re-evaluated for continued accreditation status before their current accreditation expires.

# If you're disabled, what happens to your earning power?

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The council also voted to form a special subcommittee to find alternative applications for funds that were collected for OSMA's Endowment Fund for Graduate Medical Education. Three years ago, the OSMA House of Delegates voted to endow a chair at \$750,000 at the University of Oklahoma Health Sciences Center. The fund was to be raised in three years. However, the fund is far short of OSMA's financial goal. There is only \$108,000 in the fund. Based on this circumstance, the council determined that a special committee should find alternative uses at the health sciences center for the available fund. Meanwhile, the council will conduct a poll of the endowment fund's contributors, at which time they can opt either to have their donation returned or to allow the council to use it for another purpose as determined by the special committee.

In addition, the council voted to release funds in the OSMA Loan and Scholarship Fund for use according to the discretion of the House of Delegates. For more than 20 years, members have contributed \$5.00 per year of their membership dues to provide funds for financial aid to medical students needing assistance. However, the need for OSMA's Loan and Scholarship Fund has been reduced during the last six-to-seven years because of other opportunities for financial assistance including recent efforts of the Oklahoma Physician Manpower Training Commission. In the past several years, the loan and scholarship fund has accumulated nearly \$78,000. □

### **Couple Uses Creativity In Sharing Attitudes On Health**

A representative of the American Medical Association and his wife shared their attitudes on health issues with Oklahomans by using creative techniques.

William H. Carlyon, PhD, director of AMA's Department of Health Education and his wife, Pauline, who is a freelance health education consultant, participated in two programs conducted by the Oklahoma Health Planning Commission. They first participated in a health education symposium by acting out a play that conveyed some of their personal attitudes on health education. The play, written

by Dr Carlyon, was entitled "The More Things Change, The More They Stayed the Same."

The symposium was followed next day by the 40th Annual Oklahoma Public Health Association meeting. The couple also participated in this program. They addressed the Health Education Section of the Oklahoma Public Health Association with a dialogue called "Wellness and Lifestyle Today."

One of the members of the audience described the couple's presentations as being stimulating to the intellect. A spokesperson of the Oklahoma Public Health Association added that the Carlyon's part in the health education program offered a depth and scope of knowledge that comes from experience and a vast amount of information about resources.

The spokesperson also said Dr Carlyon emphasized the need for health education to be included in what he coined the "audio-TV revolution," while Mrs Carlyon stressed the need for parents to become more involved in community health education projects.

The Carlyons were invited to participate in the recent health education programs by the Oklahoma State Medical Association on behalf of the Oklahoma Health Planning Commission. □

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# DRUGS AND DIRTY TRICKS

March 23, 1981

The Journal of the Oklahoma State Medical Association  
601 N.W. Expressway  
Oklahoma City, OK 73118

Gentlemen:

About two years ago, on a busy Monday morning in the middle of winter, I received a phone call from a lady who was crying and saying that her son, Charlie, was dead from an auto-pedestrian accident. I could not recall the name, and asked her some details. She related that he had been taken to St Anthony Hospital the previous evening and was dead on arrival. The upshot was that she wanted some tranquilizers to help her calm down.

I took her phone number and inquired of the St. Anthony emergency room whether or not they had had a child admitted DOA the night before. Of course, they had not had a DOA in three days. I then called the Police Department and they informed me that there had not been a traffic fatality in Oklahoma City involving a child in the previous week.

I reported the incident to the police, and of course when they called the number the lady had given me nobody knew who she was. Of course, all of this took a half an hour of my time out of a very busy pediatric practice and it took me the rest of the day to catch up, but I was very glad that I had pursued the subject rather than phoning in a prescription for a controlled drug.

Sincerely,

HAL VORSE, MD

HV:cae

## CALENDAR OF EVENTS

**June—Hillcrest Medical Center and the John Steel Zink Medical Institute**, both in Tulsa, will conduct continuing medical education seminars and conferences during June. Topics will include cardiology, general grand rounds, hematology-oncology, immune diseases, infectious diseases, nephrology and pulmonary CPC. For additional information call (918) 584-1351, extension 5227.

**June—St John Medical Center**, Tulsa, will sponsor continuing medical education conferences in June. Topics in obstetrics/gynecology, pathology, pediatrics, medicine, general medicine and surgery will be covered. For further information contact the Medical Staff Office, (918) 744-2066.

**Presbyterian Hospital**, Oklahoma City, will sponsor the following continuing medical education programs. For additional information contact CME Office, (405) 271-5100, ext. 2611.

**June 19-21**—The Advanced Cardiac Life Support Provider Course will be held Friday through Sunday, June 19-21, at the Sheraton Century-Center Hotel, Oklahoma City

**July 16-18**—The Keratorefractive Surgery course will be given Thursday-through-Saturday, July 16-18, at the Dean McGee Eye Institute, 608 Stanton L. Young, Oklahoma City.

**Sept. 18-20**—The Advanced Cardiac Life Support Provider Course will be held Friday through Sunday at the Sheraton Century-Center Hotel in Oklahoma City.

**The University of Oklahoma College of Medicine**, Oklahoma City, will sponsor the following continuing medical education courses. For additional information contact the CME office at the College of Medicine, (405) 271-2350.

**June 13**—Current Concepts in Radiology will be presented at the Center for Continuing Education on Saturday, June 13 at the Oklahoma Children's Memorial Hospital. The day-long program will begin at 8:00 AM and end at 5:00 PM.

**July 16-17**—The Third Annual O'Donoghue Sports Medicine Seminar will be held Thursday and Friday, July 16-17, at the Sheraton Century-Center Hotel, Oklahoma City. The program will begin at 8:00 AM on both days and end at 5:00 PM on the 16th and at noon on the 17th. □



## Deaths

HAROLD M. McCLURE, MD  
1903-1981

OSMA Past-President, Harold M. McClure, MD, died April 27, 1981 in Coral Gables, Florida, where he had resided for many years. Born in Corinth, Arkansas, Doctor McClure was graduated from Northwestern University Medical School in 1928. His practice was established in Chickasha where he remained until 1958. Certified by the American Board of Surgery, Dr McClure was a Fellow of the American College of Surgeons and a member of the International College of Surgeons.

He served as President of the OSMA in 1956-57.

LEO A. MYERS, MD  
1932-1981

Leo A. Myers, MD, 48, Shattuck physician, died April 19, 1981. Doctor Myers had practiced in Shattuck since 1969. A native of Houston, he was graduated from the University of Oklahoma College of Medicine in 1967 and entered family practice. He had served on the Board of Directors of the American Association for Comprehensive Health Planning.

GILBERT L. HYROOP, MD  
1900-1981

Oklahoma City plastic surgeon, Gilbert L. Hyroop, MD, died April 15, 1981. He was graduated from the University of Oklahoma College of Medicine in 1927. Following post-graduate training, he established his practice in Oklahoma City in 1932. Doctor Hyroop was a Fellow of the American College of Surgeons and the International College of Surgeons and a Diplomat of the American Society of Plastic and Reconstructive Surgery. He was also co-founder of the American Society for Surgery of the Hand.

HUGH JETER, MD  
1895-1981

Hugh Jeter, MD, Oklahoma City internist and pathologist, died May 15, 1981. Doctor Jeter, a native of Alden, Kansas, was graduated from the University of Louisville School of Medicine in 1925, moving to Oklahoma City later that year to complete his internship and residency training. He had served on the National Committee for Detection and Education of the American Diabetes Association; was a member of the American Society of Clinical Pathologists, the American College of Physicians, the Southern Medical Association, the American Diabetes Association and the Oklahoma City Academy of Medicine.

L. V. BAKER, SR., MD  
1900-1981

Long-time Elk City physician, L. V. Baker, Sr., MD, died April 7, 1981 in Oklahoma City. Doctor Baker was a native of Odell, Indiana and came to Oklahoma in 1919. He was graduated from the University of Oklahoma College of Medicine in 1925, establishing his practice in Elk City later in that same year. Active in many civic as well as medical affairs, Doctor Baker was the father of L. V. Baker, Jr., MD, also an Elk City physician. Doctor Baker and his two brothers became the sixth generation of Bakers to become MDs. He was a Life Member of the OSMA.

SAM W. HENDRIX, MD  
1928-1981

Oklahoma City obstetrician and gynecologist, Sam W. Hendrix, MD, died May 12, 1981. Born in Dallas, Dr Hendrix, 52, was graduated from Baylor University College of Medicine

## news

in 1951, where he became an instructor in obstetrics and gynecology. His practice was established in Oklahoma City in 1957. He was a member of the Oklahoma City Obstetric and Gynecology Society.

### J. HOLLAND HOWE, MD 1886-1981

J. Holland Howe, MD, a long-time Ponca City urologist and dermatologist, died April 20, 1981. A na-

tive of Spencerville, Ohio, Dr Howe was graduated from the University of Louisville School of Medicine in 1916. He had served as a ship's surgeon before his tenure with the US Army during World War I. Following a brief period of practice in Illinois, Dr Howe began postgraduate study, specializing in urology and dermatology. He established his practice in Ponca City in 1930, where he remained until his retirement. A life member of the OSMA, Dr Howe was a member of the American Urological Society and was listed in American Men of Medicine. □

## IN MEMORIAM

### 1980

<i>Elton W. LeHew, MD</i>	<i>May 3</i>
<i>C. W. Arrendell, MD</i>	<i>May 6</i>
<i>Edward A. Abernethy, MD</i>	<i>May 9</i>
<i>William F. Thomas, Jr., MD</i>	<i>May 17</i>
<i>Robert C. Lawson, MD</i>	<i>May 17</i>
<i>Robert L. Lembke, MD</i>	<i>June</i>
<i>Joseph Fulcher, MD</i>	<i>July 2</i>
<i>Emmett O. Martin, MD</i>	<i>July 15</i>
<i>James R. Colvert, MD</i>	<i>July 22</i>
<i>Thomas J. Hardman, MD</i>	<i>July 24</i>
<i>Kelly M. West, MD</i>	<i>July 28</i>
<i>Tom S. Gafford, MD</i>	<i>August 4</i>
<i>Joseph J. Swan, MD</i>	<i>August 25</i>
<i>Milton J. Serwer, MD</i>	<i>August 28</i>
<i>Henry B. Jenkins, MD</i>	<i>August 28</i>
<i>I. F. Stephenson, MD</i>	<i>September 7</i>
<i>Emory E. Beechwood, MD</i>	<i>September 9</i>
<i>Paul B. Champlin, MD</i>	<i>September 17</i>
<i>Bernard Brock, MD</i>	<i>September 25</i>
<i>Lee Pullen, MD</i>	<i>October 6</i>
<i>Walter E. Sethney, MD</i>	<i>October 14</i>
<i>Ralph R. Nepveux, MD</i>	<i>October 19</i>

<i>John M. Parrish, MD</i>	<i>November 8</i>
<i>Franklin D. Sinclair, MD</i>	<i>November 16</i>
<i>Henry K. Speed, MD</i>	<i>November 17</i>
<i>Joel T. Woodburn, MD</i>	<i>November 18</i>
<i>Frank R. Viereggs, MD</i>	<i>December 6</i>
<i>Richard G. Stoll, MD</i>	<i>December 7</i>
<i>Robert C. Bowers, MD</i>	<i>December 31</i>

### 1981

<i>Athol L. Frew, Jr., DDS, MD</i>	<i>January 1</i>
<i>William R. Morris, MD</i>	<i>January 17</i>
<i>Geoffrey Kelham, MD</i>	<i>January 27</i>
<i>Charles G. Stuard, MD</i>	<i>January 30</i>
<i>Fred S. Watson, MD</i>	<i>February 3</i>
<i>Robert J. Terrill, MD</i>	<i>February 16</i>
<i>David J. Tomko, MD</i>	<i>March 4</i>
<i>Eugene F. Lester, Jr., MD</i>	<i>March 16</i>
<i>J. Samuel Binkley, MD</i>	<i>March 16</i>
<i>Gilbert L. Hyroop, MD</i>	<i>April 15</i>
<i>Leo A. Myers, MD</i>	<i>April 19</i>
<i>J. Holland Howe, MD</i>	<i>April 20</i>
<i>Harold M. McClure, MD</i>	<i>April 27</i>
<i>Sam W. Hendrix, MD</i>	<i>May 12</i>





Lieutenant Governor Spencer Bernard (left) presents a check to Alva Card, EdD, (right) on behalf of the Oklahoma State Medical Association during the 1981 "Ability Counts" Contest Awards Presentation. Doctor Card is the teacher of a Putnam City High School student who won the "Ability Counts" contest. For several years, OSMA has sponsored the Washington, DC trip for the contest winner's teacher. Winners are selected by its sponsor, the Governor's Committee on Employment of the Handicapped. Pictured in the center is Leonard Williams, Sr., chairman of the committee. □

## Prescription Sales Increase

Prescription sales are up and a report issued by the Medical Economics Company, New Jersey, credits the increase to America's aging population.

The report indicated that the prescription market had a six-year decline in the number of prescriptions sold when sales dropped from 1.5 billion in 1973 to less than 1.4 billion by 1979. However, the declining trend reversed last year with a 2% increase in prescription sales.

Recently, doctors have been ordering larger-quantity prescriptions to prevent patients needing frequent refills. Despite the larger-quantity prescriptions, refills still increased by 1.6% last year.

More than 23 million people are 65 years old or older and they consume two-and-one-half times more medication than do younger people, says the report.

A breakdown of the components contributing to the overall increase in prescription sales include a 2.3% increase in new prescription sales, and a 5.9% increase in generic prescription sales. The report also indicated that chain drugstore proprietaries profited most from the sales increase while some independent pharmacies had proprietary losses. The report said inflation has created a more price-conscious population which has opted for the lower prices in chain drugstores. □

## Just For Your Information

### DOCTORS REMOVE TICKING WATCH FROM PATIENT'S STOMACH

Down through the years, doctors have removed an assortment of objects from the stomachs of various patients — but a wristwatch? Yes. A 49-year-old, New York man had swallowed an entire wristwatch to keep a mugger from taking the brand new watch. Five months later, doctors removed the object from the man's stomach, but only after they discovered the watch for themselves via X-rays. The X-rays were taken while the man was in the hospital for another health problem. However, the watch caused no discomfort to the patient for the five months that it was in his stomach.

### A FERRET SNEEZES AND "GETS EVEN"

Those who are usually offended by the use of animals for scientific research would probably credit one particular ferret for getting even with a scientist.

Ferrets often are used in scientific research for studies involving respiratory diseases. A scientist had inoculated a particular ferret with a respiratory infection. The researcher stooped down to examine the animal face-to-face following the injection. He was looking for watery eyes or any other signs of infection in the ferret. But at just the right time, the little creature managed to sneeze in the scientist's face and transmitted the infection to the scientist.

### SNORING CURES

People who snore often do so while sleeping on their backs. They usually cease snoring after turning on their sides. In a recent *Journal of the American Medical Association*, several snore cures for keeping snorers off their backs were included.

One doctor was cited for a cure he says was suggested by his grandmother. She would sew a small glass marble between the shoulder blades of pajama tops for snorers. When snorers rolled on their backs, the marble would cause them to turn over usually without waking.

Another doctor was cited for a similar cure, but instead of using a glass marble, he suggests sewing one-half of a soft rubber ball to the back of pajamas. A small cushion or pad will also work. □



## Book Reviews

**Epidemiology of Diabetes and its Vascular Lesions.** By Kelly M. West. New York: Elsevier North-Holland, 1978, 579 pages, \$49.50.

The late Doctor Kelly West has provided a comprehensive review and analysis of the enormous and diverse literature on the epidemiology of diabetes mellitus. He has done an outstanding job in integrating the vast amount of available information on the subject. It is the most detailed publication treating this topic which has appeared.

The book is well organized and the information presented clearly. It contains ten chapters, three appendices, and an extensive bibliography which is arranged in alphabetical order. The more than 2,500 citations (115 pages) include reports of historic interests as well as publications as recent as 1977. An interesting change in format is the location of the appendices within the text near the appropriate section.

An introductory chapter describes the epidemiologic methods used in the study and control of diabetes. The author stresses the importance of experimental and analytic epidemiologic studies in providing insights into the causes and other aspects of diabetes and its complications. Particular attention is given throughout to various aspects of diabetes in different populations. Other chapters discuss detection and diagnosis, international prevalence and incidence, etiologic factors and mortality, and there is a comprehensive review of epidemiologic studies on the macrovascular and microvascular complications of diabetes. Each chapter reviews current investigation of that particular topic, and the author generally presents a balanced analysis of the most important information as well as areas of conflict. The author gives an excellent discussion of insulin and non-insulin dependent diabetics and emphasizes that these terms are not synonymous with severe and mild diabetes respectively. There is excellent discussion of the complications of diabetes. About the only topic not covered is some of the recent knowledge about the potential protective influence of certain histocompatibility antigens, possible alterations in T-lymphocyte functions and studies relating to viral infections as a cause of diabetes.

Doctor West has provided a superb overview of diabetes mellitus and its vascular complications. It is an invaluable resource and reference for all concerned with this disease. *Harris D. Riley, Jr., MD*

**Harrison's Principles of Internal Medicine.** Ninth edition. Edited by Kurt J. Isselbacher, Raymond D. Adams, Eugene Braunwald, Robert G. Petersdorf, and Jean D. Wilson. 2,200 pages, McGraw-Hill Book Company, New York, 1980, Price, \$45.00 (one volume); \$55.00 (two volumes).

Since 1974 new editions of this excellent textbook have appeared at three-year intervals reflecting the introductory statement, "Medicine is an ever-changing science." This edition is dedicated to the editor-in-chief of the first five editions, Tinsley R. Harrison, who is described as, "A delightful, vivacious, passionate physician, he stimulated everyone with whom he came in contact, and he placed an indelible stamp on the medical events of his day."

The contents are divided into five main parts. An introduction by the editors provides a brief but effective coverage of the role of the physician in practice and in society. Part two deals in general terms with important manifestations of disease, such as pain, alteration in body temperature, in body weight, in gastrointestinal function and in other vital functions. The first chapter in this section, which deals with the problem-oriented record, would be more logically placed in the introduction. Part three, "Biological Considerations," deals with basic concepts such as genetics in human disease, clinical immunology, metabolic considerations, nutritional and metabolic disorders. Part four describes specific disease entities caused by microbial, viral, parasitic and chemical agents. Part five, which takes up somewhat more than half the book, deals with diseases of the various organ systems. For most of the organ systems there is a brief introductory section on the approach to the patient with diseases of that particular system.

This textbook differs in its format from the traditional one. However, its format has withstood the test of time. The editors have done an excellent job in maintaining cohesion in view of the 220 contributors. This edition maintains the high standard of previous ones. *Harris D. Riley, Jr., MD*



**Melloni's Illustrated Medical Dictionary.** By Ida Dox, Biago J. Melloni, and Gilbert M. Eisner. Baltimore: Williams and Wilkins Co., 1979, 532 pages, 2,537 illus., \$16.50.

The Preface states, "The rapid expansion and accumulation of knowledge required in the health sciences, coupled with a decrease in the time available to acquire this knowledge, has created the need for a new dictionary of health-science terminology that helps the reader to quickly and easily assimilate this terminology." This new dictionary is a compilation of approximately 25,000 terms that comprise the common core of information for all of the health sciences, as well as a large number of terms most frequently used in the distinctive language of particular subspecialties. It was developed especially for students of the health sciences. The thesis of this new dictionary is to incorporate illustrations as visual components of textual definitions. It takes basic groups of some 25,000 terms and more than 2,500 illustrations and combines them into complementary textual-visual definitions. Each illustration is integrated with a specific term and its definition on the same page. Brown coloring correlates the respective illustration (or any of its parts) with the appropriate entry in the text contained on that page.

The illustrations and drawings are generally of good quality and the textual material, while not encyclopedic, is well organized.

This dictionary will be useful not only for students of the various health sciences but for health education of patients and their families. *Harris D. Riley, Jr., MD*

**Green and Richmond Pediatric Diagnosis: Interpretation of Symptoms and Signs in Different Age Periods.** Third edition. By Morris Green. Philadelphia: W. B. Saunders Co., 1980, 658 pages, \$25.00.

The second edition of this useful book appeared in 1962. This, the third edition, is thus welcomed after a long interval.

The general format and style is the same as with the last edition. The first section deals with physical findings and how they should be interpreted; the second section, which makes up about two-thirds of the book, concerns initial or presenting symptoms and

signs. In this section the chapters are concerned with broad but common manifestations such as "fever", "diarrhea" and "abdominal pain." There is also a brief initial discussion on the interview and physical examination.

In both of the major sections the author provides an etiologic classification for each subject. Because the book is designed as an aid to the formulation of differential diagnosis, there is little clinical elucidation of specific diseases and almost no therapeutic information. Ample references to the medical literature are included.

Several new chapters that deal with changing aspects of child health, including enuresis, encopresis, sleep disorders and others have been included and enhance the book's usefulness.

The third edition maintains its usefulness. It is an excellent addition to the library of everyone concerned with child health. *Harris D. Riley, Jr., MD*

**The Biologic and Clinical Basis of Infectious Diseases.** Edition 2. By Guy P. Youmans, Phillip Y. Paterson, and Herbert M. Sommers. Philadelphia: W. B. Saunders Co., 1980, 849 pages, 254 illustrations, paper, price \$19.50.

The first edition of this book appeared in 1976. It was pointed out that it was a book oriented to the medical student which attempted to relate facts learned in microbiology to the patient. This emphasis remains unchanged in the revised edition. Most of the major topics in infectious diseases are touched on by means of emphasizing the microbiology of each pathogen and the host's immunologic response. This edition has several new chapters including those on infectious mononucleosis, malaria, and infections of the oral cavity. Several existing chapters are revised.

Although the publisher provides exuberant promotional claims about the value of the book, diagnosis and management information is, in places, sketchy. Moreover, there are numerous misspellings and typographical errors.

This book is useful for students with the above reservations. *Harris D. Riley, Jr., MD* □

## Miscellaneous Advertisements

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## Allies In War

In the war on drug abusers, among our front-line allies are our professional colleagues, the pharmacists. They decipher our outrageous script, they fill in our oversights, they call us when we make mistakes, they share our frustrations. Doubtlessly they are subjected to more dirty tricks associated with drug abuse in a week than we are in a year. They are assaulted, robbed, burglarized, shot, knifed, kidnapped and murdered in the hostilities far more often than are the physicians in this war.

But, as we are often duped, so are pharmacists. Being human, they make mistakes as we do. And their judgment is sometimes faulty, also. Moreover, there are unethical and dishonest pharmacists as there are similarly unprincipled physicians, nurses and other health professionals.

In order to achieve the greatest degree of success in our efforts to inform and educate our readers about the problem of drug abuse, drug abusers and the diversion of drugs from ethical sources, our feature "Drugs and Dirty Tricks," occasionally will include anecdotes which reveal some of the methods and practices employed by unethical pharmacists in the perpe-

tration of dirty tricks on us and our patients.

Some of these anecdotes will describe uncommon events while others will present details of relatively common fraudulent practices. None of them will be hypothetical. Each of them will be based on actual experiences as described by the physicians and, in some instances, the patients who were victimized.

Our objective in presenting this material is to help physicians become better informed about the ways their legitimate prescriptions can be used to support the street-traffic in drugs. Once informed, it is hoped that they will, in turn, enlist the cooperation of their patients in reducing the frequency and success of such dishonest practices.

Another objective, although less direct, is to bring practicing physicians and practicing pharmacists closer together in our professional activities. We share many identical concerns and responsibilities and we are dedicated to the same principles of ethical conduct. Close cooperation between the members of our profession is essential if we hope to do the most good and the least harm for the greatest number of our patients. Without the support and cooperation of our allies, the pharmacists, we will never win this war. In fact, we probably will never win a battle.

MRJ

The American Medical Association's 130th Annual Meeting was held this month in Chicago. The Oklahoma delegation participated in the resolution of over 234 items of business brought before the House of Delegates.



Most of the items introduced by our delegation were favorably received by the AMA House. Two Oklahoma resolutions that encouraged the AMA to grant incentives to states that maintain or accomplished unified membership were combined into a substitute resolution and referred to the Board of Trustees for further study. One would permit a dues reduction of \$50 per year for members from unified states and the other would grant an extra seat in the House of Delegates. Both received some favorable testimony in the reference committee.

Another proposal called on the AMA to develop and disseminate guidelines for a model voluntary, locally based health planning program. While the reference committee recommended that the resolution not be adopted, it did recommend (and the House agreed) that a council report be adopted that essentially fulfilled the intent of the resolution. The report supported non-mandated, voluntary, locally based health planning and established thirteen principles to be used as guidelines in developing a community health planning strategy.

The House also adopted resolutions that call for a study of the shortage of psychiatrists and commended medical personnel at George Washington Hospital for the exemplary medical care rendered to President Reagan and others wounded in the assassination attempt.

AMA News and other publications will publish complete details of the House actions, but you should know that your delegates do an excellent job of representing your views at the national level. Joe Crosthwait, chairman of the OSMA caucus, did an outstanding job or-

ganizing the delegation and securing support for OSMA's position on a number of issues. The AMA, with all its problems, is a viable democratic organization, and your representatives work very effectively with delegates from other states in establishing national health policy.

Washington is in turmoil! To observers of the Washington scene that may come as no surprise, but to an infrequent Capitol visitor it comes as a shock.

Following the AMA Annual Meeting, Ed L. Calhoon, Perry Lambird, David Bickham and I went to Washington to visit our federal legislators about pending health legislation. President Reagan has proposed massive cutbacks in Medicare and Medicaid funding, cutbacks that may directly affect patient care. While there is still debate about where and how deep the reductions will go, there is a consensus in both parties that the spiraling health care programs must be curtailed.

The characteristics of the solution will be important to every physician. The "competitive" approach advocated by the Administration would permit "competitive bidding" and "negotiations" with providers, carried to a logical end that could result in the corporate practice of medicine. It could certainly result in a more aggressive attitude by hospitals to become more involved in direct patient care. We discussed these possibilities with all of our Congressmen, Senators and representatives of Health Care Financing Administration, but the value of our testimony is questionable. These dramatic changes proposed in Medicare and Medicaid will be included in the Omnibus budget reconciliation package and likely will not be debated as separate issues. Thus, a Congressman will be faced with casting a vote for or against the Reagan budget.

Not all the news is bad! It appears almost certain that a number of the Health Regulatory Bills will be phased out — Health Planning and PSRO.

*J. B. Pitt*



# TOXIC SHOCK SYNDROME IN OKLAHOMA

## INTRODUCTION

Toxic shock syndrome (TSS) has recently been well publicized.<sup>1-9</sup> The following is a brief review of our experience with ten patients. Certain features of particular clinical interest are discussed.

## PATIENTS AND METHODS

Between October, 1975 and February, 1981 ten patients whose illnesses conformed to the TSS case definition<sup>7</sup> were hospitalized in Oklahoma. The authors were actively involved in the management of all patients. Follow-up information was obtained through office visits and telephone interviews. Pertinent data are summarized in Tables 1, 2, and 3.

a) Pelvic Examination: All patients had vaginitis with a purulent, often blood-tinged, vaginal discharge. When present, the blood *appeared* to come from the cervix, presumed to be the result of menstrual flow. On the other hand, the vaginal discharge appeared to arise in the vagina. In one (patient 3) the labia were red, edematous, macerated and extremely tender. The cervix was swollen and red in two patients and in one (patient 7) the right half of the cervix appeared black with necrosis extending to involve a contiguous patch of vaginal mucosa. On bimanual examination the uterus and adnexae were minimally tender except in patient 10. This patient had marked

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*Ten patients who developed the toxic shock syndrome during menstruation were treated and all survived. All were hypotensive and five were in shock. Staphylococcal vaginitis proved by Gram stain and culture was characteristic. Pelvic examination is essential in order to confirm the diagnosis and avoid serious errors, and the Gram stain of vaginal secretions is useful in establishing a bedside diagnosis.*

TABLE 1. SUMMARY OF THE 13 MOST CHARACTERISTIC FEATURES OF TSS AS SEEN IN OUR TEN PATIENTS.

1. Occurrence in females who use tampons continuously during menses \_\_\_\_\_ 10/10
2. Sudden illness between the 3rd and 6th day of menses \_\_\_\_\_ 10/10
3. Acute onset of a) fever, chills, weakness, and myalgias \_\_\_\_\_ 10/10  
b) nausea, vomiting, or diarrhea \_\_\_\_\_ 9/10
4. Patient admitted in a toxic state with high fever in variable degrees of hypotensive shock often delirious and combative \_\_\_\_\_ 10/10
5. Erythematous macular rash a) generalized \_\_\_\_\_ 9/10  
b) more prominent in lower abdomen and upper thighs (panty area); frequently most pronounced over the perineum or mons pubis \_\_\_\_\_ 8/10
6. Conjunctivitis ( $\pm$ purulent drainage  $\pm$  subconjunctival hemorrhage) and/or glossitis \_\_\_\_\_ 6/10
7. Purulent often blood-tinged vaginal discharge (vaginitis) \_\_\_\_\_ 10/10
8. Vaginal Gram stain: numerous polymorphonuclear leukocytes with clumps of Gram positive cocci \_\_\_\_\_ 8/8
9. Vaginal culture: coagulase positive *S. aureus*  
a) resistant to penicillin \_\_\_\_\_ 7/8  
b) sensitive to penicillin \_\_\_\_\_ 1/8
10. Hepatic and/or muscle injury (elevated bilirubin, lactate dehydrogenase, alkaline phosphatase, SGOT or creatine phosphokinase) \_\_\_\_\_ 9/10
11. Renal dysfunction (elevated BUN and/or creatinine) \_\_\_\_\_ 6/10
12. Leukocytosis with marked left shift \_\_\_\_\_ 10/10
13. Desquamation of hands  $\pm$  feet during the second week with variable degrees of hair and nail loss during the second month after illness \_\_\_\_\_ 10/10

adnexal tenderness and initially was thought to have pelvic inflammatory disease.

In all eight patients in whom it was examined, the vaginal discharge contained numerous polymorphonuclear leukocytes

(PMNL). In two patients, the Gram stain demonstrated clumps of Gram positive cocci (G+C) both extra- and intracellular with notable absence of the normal vaginal flora. In six others G+C in clumps were intermixed with the normal vaginal flora of Gram variable rods. Vaginal cultures in seven patients grew coagulase-positive *S. aureus* resistant to penicillin but sensitive to most other antibiotics including cephalosporins, methicillin, clindamycin, erythromycin and tetracycline. On the other hand, the *S. aureus* grown from the vagina of patient 10 was sensitive to penicillin and all these other antibiotics. Urinalysis was abnormal in all; pyuria, hematuria, and proteinuria occurred in various combinations but casts were notably absent. These urinary findings were considered nonspecific since mild proteinuria commonly occurs in febrile illnesses. Moreover, in the presence of blood-tinged vaginal discharge, pyuria and hematuria are usually reported.

b) Cultures and Serology: All patients had negative urine cultures and each had three or four negative blood cultures. Stool cultures were done in five and were negative for salmonella, shigella, campylobacter and *S. aureus*. Throat cultures were done in three, spinal fluid cultures in three, and cervical gonorrhea cultures in two. The throat culture of patient 1 showed a heavy growth of *S. aureus* while all the other cultures were negative. In all, acute serologic titers were negative for febrile agglutinins and antistreptolysin-O.

c) Clinical Course: All patients were hypotensive on admission (BP<110/60) but only five were in shock as evidenced by peripheral vasoconstriction, thready pulse, lethargy and disorientation. These five were treated aggressively with fluid and electrolyte replacement and corticosteroids. Four became normotensive within 24 hours while one (patient 6) developed refractory shock, coma, and respiratory failure. She was placed on assisted ventilation, had a (Swan-Ganz) catheter inserted in the pulmonary artery and was treated with nitro-prusside plus dopamine. She began recovering on the fifth day of her illness. All were treated with various anti-staphylococcal antibiotics in combination with other antimicrobial agents. After adequate hydration all, except patient 6, became afebrile within two-to-four days. Because numerous changes were made in the antimicrobial coverage of most patients, it is not possible to



TABLE 2. SUMMARY OF PATIENT PROFILES, VITAL SIGNS AND INTEGUMENTARY LOSSES IN TEN PATIENTS WITH TSS.

PATIENT:	1	2	3	4	5	6	7	8	9	10
Age in years.	21	41	21	15	17	16	22	29	14	16
Menstrual day during which illness started.	4	6	6	6	3	4	5	5	5	4
Admission date.	10/27/75	10/13/78	10/21/79	2/11/80	7/6/80	8/8/80	8/19/80	9/28/80	10/10/80	2/8/81
Days spent in the hospital.	12	21	5	6	4	14	10	6	7	5
Admission blood pressure in mm.Hg.	80/40	90/50	80/40	98/50	106/50	38/20	50/0	50/30	70/40	80/50
Highest oral temperature in degrees Celsius.	38.9	40	38.4	40	38.9	40.6	40	40.6	40.4	38.9
Number of hospital days with fever.	4	3	2	2	2	9	3	3	3	4
Integumentary loss.*	++++	+++++	+++	++	+++	+++	+++++	+	+++	+

\*Each (+) denotes one of five sites of integumentary loss (hands, feet, nails, scalp hair, pubic hair)

TABLE 3 PEAK OR TROUGH LEVELS OF RELEVANT LABORATORY DATA IN TEN PATIENTS WITH TSS.

Test and Normal Range(N)	1	2	3	4	5	6	7	8	9	10
Blood urea nitrogen. (N)= 10-20 mg/dl.	85	37	40	N	N	50	53	N	N	N
Serum creatinine. (N)= 0.7-1.4 mg/dl.	N/D	4.4	5.1	N	N	1.5	6.8	1.4	N	1.2
Total serum bilirubin. (N)= 0.2-1 mg/dl.	3.9	N	3.1	1.5	N	2.8	5.7	1.1	N	N
SGOT*. (N)= 10-40 mu/ml.	N	N	100	110	80	225	250	N	N	N
Lactate dehydrogenase. (N)= 60-180 mu/ml.	N	250	240	N	N	1720	700	N	240	N
Creatine phosphokinase. (N)= 20-140 mu/ml.	N/D	N	250	N	N	2040	8840	N	266	N
Alkaline phosphatase. (N)= 30-70 mu/ml.	90	100	150	110	130	150	308	N	160	N
WBC/min. <sup>3</sup>	18800	18200	23900	18800	16300	25000	20000	20000	33600	17500
% segmented/unsegmented neutrophils.	67/28	84/13	23/56	57/36	79/9	93/6	14/80	51/46	68/30	54/36
Platelets/mm <sup>3</sup> (Lowest count).	28000	N	N	N/D	N	31000	55000	N	N/D	N/D
Prothrombin time in seconds. (patient/control)	N/D	N	N/D	N/D	N/D	17/10	17/11	18/12	N/D	N/D
Partial thromboplastin time in seconds. (patients/control)	40/36	N	N/D	N/D	N/D	112/26	55/23	30/26	N/D	N/D
Arterial blood gases.	7.36/81/25	N	N/D	N/D	N/D	7.3/60/29	7.27/90/21	7.3/95/21	N/D	N/D
PH/Po <sub>2</sub> /PCo <sub>2</sub> mm Hg.										

\*Serum glutamic oxaloacetic transaminase level.

N= Normal range. N/D= Not done.

evaluate the role of antibiotic therapy in patient recovery. Although seven experienced significant morbidity all patients eventually recovered without apparent long-term sequelae at the time of this report. A milder episode, one month preceding or following admission, occurred in each of three patients.

d) Specificity of the Vaginal Gram Stain: All vaginal Gram stains taken at our office, obtained during patients' active menstruation between October, 1978 and October, 1980 were reviewed. Only one of the 27 control Gram stains reviewed demonstrated both numerous PMNL and clumps of G+C. On the other hand, all eight vaginal Gram stains from our TSS

patients had numerous PMNL and clumps of G+C ( $P < 0.001$  by chi-square analysis).

#### DISCUSSION

TSS is not a new disease. Reports as early as 1927 have described the clinical picture in association with staphylococcal infections.<sup>10</sup> However, reports of the syndrome were rare until 1978 when Todd<sup>11</sup> reported a cluster of seven cases. Since then, the disease has become well characterized<sup>3,5-9</sup> and hundreds of cases have been reported.<sup>12</sup>

Our experience with these ten patients is generally similar to that of others.<sup>3, 5-9</sup> The dis-

ease spectrum ranged from mild to severe. The clinical picture was so distinctive that the diagnosis was correctly made on admission in the latter six patients. Table 1 lists the thirteen most characteristic features of the TSS as we have seen it. There are, however, five points that deserve further comment.

1) In order to avoid diagnostic errors,<sup>13-16</sup> a pelvic examination should be performed on every woman who presents with TSS features. Moreover, since *S. aureus* is usually not a part of the vaginal flora,<sup>3, 7, 17, 19</sup> the vaginal discharge should be routinely cultured and the laboratory instructed to search for and isolate *S. aureus* as the etiologic agent.

2) So far, all the *S. aureus* isolated from vaginal cultures of TSS patients are reported to be resistant to penicillin.<sup>3</sup> In this regard, the *S. aureus* isolated from the vagina of patient 10 was an exception. (Table 1)

3) In our experience and that of others,<sup>20</sup> the vaginal Gram stain is quite consistent in normal women. It shows few or no PMNL and a predominance of Gram variable rods. A vaginal Gram stain revealing clumps of G+C with numerous PMNL provides quick bedside evidence in favor of the diagnosis.

4) Although there is no diagnostic laboratory test, the most consistent laboratory abnormality was a marked leukocytosis with a left shift. (Table 3)

5) While others have described the rash as generalized,<sup>3, 6, 7</sup> we have noted it to be more prominent over the lower abdomen and upper thighs (panty area) in the majority of cases. This distribution has also been noted sporadically by other authors.<sup>8, 13, 14</sup> In one patient, a generalized rash was not observed initially and the erythroderma was limited primarily to the perineal and pubic regions. Regional eryth-

roderma is commonly seen surrounding staphylococcal infections. It is possible that the "panty area" erythroderma of TSS is the regional reaction to staphylococcal vaginitis.

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# Contemporary Federal Medical and Health Issues

## A Position Statement of the Oklahoma State Medical Association

### SUMMARY

American medicine has been tremendously successful. Its capacity to relieve suffering and prevent death is accelerating rapidly. Diseases that only a few years ago crippled or killed are now controlled, and medicine's ability to implant, replace or reconstruct has given renewed hope to thousands of Americans. The techniques developed in this country and the research performed here have touched the world.

This success has not been without its costs. And cost, rather than the quality of medicine, has become a major concern. At first, the American medical care system may appear to be the principal force behind rising medical care costs. A thoughtful review, however, shows that the major cause is the individual patient. It is each individual patient's demand for medical services and an improved quality of life which has stimulated and maintained American medicine's successes and costs.

Proposed solutions to rising medical care costs have centered upon rationing . . . either the rationing of current services, of access to care, or of resources dedicated to medical care and research. Rationing is a part of every seg-

ment of our economy because there is a finite limit to all resources. In medicine, however, rationing literally involves matters of life and death. We believe that alternatives are available which can maximize cost savings while not impairing individual freedom or health.

Competition among providers is not a sufficient force to maximize cost savings. Some "competition" proposals might even increase medical costs if generally applied. The key to cost containment is the psychology of the individual patient. Regulations, controls, and expanded coverage and/or financing may block any opportunity for limiting costs, and some "competition" proposals contain all three elements.

Cost increases may be restrained by health education, shifting direct federal beneficiaries to the private sector, deregulation, and, most importantly, cost sharing by the patient. Of various forms of cost sharing, a newly described "health investment plan" may offer the best opportunity to restrain costs without harming individuals.

In control of medical care costs, the Oklahoma State Medical Association recommends that: the federal government make no further investment in health insurance; regulations be reduced; direct federal beneficiaries be cared

Adopted by the Board of Trustees February 8, 1981.

for by the private sector; continued open competition be supported; cost sharing by patients of medical expenses be encouraged; and, that experimentation be carried out at the state level prior to changes in financing or organization of medical care at the federal level.

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#### I. The Quality of United States Medical Care

Americans often ignore important personal health principles, but, with our outstanding medical care system, we are among the most healthy people in the world. Some historically remarkable medical advances were realized in the last decade. From 1970 to 1980, life expectancy in the US increased from 70.9 years to 73.2 years. That increase in life expectancy is the same as if we had eradicated all cancer. In those ten years, the death rate from heart diseases decreased by 17 percent. Infant mortality decreased almost 30 percent. The death rate from Hodgkin's disease decreased almost 80 percent. And choriocarcinoma went from a disease which was almost uniformly fatal to a disease with a cure rate of 99 percent.

We can also be proud of the substantial reduction in morbidity among our population. Technological advances have made artificial joints possible, and today previously crippled and immobilized patients participate nearly normally in society. Cochlear implants have relieved many forms of deafness. And cataracts have been virtually eliminated as a cause of blindness and morbidity.

In truth, the American medical system has made it possible in many instances for the crippled to walk, the deaf to hear and the blind to see.

Unfortunately, these stunning successes have been over-shadowed by a national perception of rapidly increasing medical care costs.

#### II. The Cost of Contemporary Medical Care

Medical care costs are rising. Few would expect otherwise. Concerted and successful efforts to improve medical quality would naturally lead to an increase in costs.

But increasing medical care costs are not wholly disproportionate to the general cost of inflation. The consumer price index (CPI) provides one measure of the rate of inflation albeit an imperfect one. From August, 1971 (the period immediately prior to the imposition of cost controls) through February, 1980, the following annualized increases occurred in the components of the consumer price index: all items, 8.1 percent; all services, 8.5 percent; medical care, 8.4 percent; physicians' services, 8.4 percent; and hospital room rates, 11 percent. Despite major advances in the quality of medical care, physicians' services have only kept pace with the all services component of the consumer price index; they have not out-paced them. Similarly, medical care has increased only 0.3 percent above the all items index. Unlike other CPI components, no allowance is made for improved medical quality. A significant part of the cost inflation "problem" lies in the standards by which it is measured.

The improved quality of medical care has led to increased costs over and above those imposed by general inflation alone. Barkav Saunders, former deputy chief actuary of the Social Security Administration, often noted that improved medical care would *inevitably* lead to increased medical costs. Time, experience and common sense have proved Saunders correct.

A most elementary example is the person who dies of a heart attack at a baseball game. In this case there is no medical cost because none is necessary. The person is dead.

However, consider what occurs if the person is successfully resuscitated. In this case he faces not only immediate medical care costs and the cost of hospitalization, but, following discharge, will require rehabilitation and additional medical care . . . perhaps for the rest of his life. The saving of this person's life significantly increased the cost and consumption of medical care resources. Compound this by thousands of similar occurrences each year and



the relationship of higher-quality health care to higher costs is obvious.

The federal government has contributed significantly to rising medical costs. Federal regulations are extremely burdensome, to the degree that the Pennsylvania Hospital Association calculated that compliance with the Life Safety Code for hospitals in that state alone will cost approximately four-hundred-million dollars. A Touche-Ross survey in February, 1980, disclosed that 75 percent of hospital administrators cited increasing government regulations as the single most important cause of rising hospital costs. The federal regulatory burden is immense, all pervasive, and exceedingly costly.

Federal medical care inefficiencies also play a significant role. Veterans care, armed forces dependent care, Public Health Service and the Indian Health Service activities could be shifted into the private sector, resulting in significant dollar savings for the federal government. The private sector appears to be more efficient. The following chart comparing lengths of stay in Veterans Administration hospitals versus voluntary hospitals provides a general comparison of the two systems:

#### Average Length of Stay in Days

Condition	V.A. Hospitals	Voluntary Hospitals
Pilonidal Cyst	15.7	5.8
Hemorrhoids	15.8	7.1
Duodenal Ulcer	15.2	6.7
Gallstones	26.5	11.9
Prostate	22.1	9.7

Insurance-propelled-demand inflation is the single most significant factor in increasing medical costs. People use insured services beyond the point at which their real value equals their real cost. In other words, once an insurance premium has been paid, the owner of that insurance has no real incentive to lessen costs or to decrease utilization. Almost without exception insured individuals incessantly demand "the best," whether that be private hospital rooms, extended lengths of stays, color television sets, or multiple consultations. On the other hand, uninsured individuals have a completely different perspective and are generally concerned with the most inexpensive and efficient means of relief of symptoms or cure. Physicians work for their patients. Physicians will attempt to honor their patient's wishes. No easing in medical cost in-

creases should be anticipated, unless and *until demand can be controlled at the level of the individual patient.*

### III. General Theories of Medical Cost Control

The only *general* solution to medical care costs lies in rationing. The only general question is, who is to decide the scope and amount of rationing? We believe that any rationing decision must be individual rather than collective. Collective, federal or state decisions are inevitably inflexible, inadaptatable, and costly. We have a strong bias toward market solutions and individual freedoms in this country, and collective decisions affecting individual lives are unpalatable.

Only four major functional techniques exist by which to ration medical services: queues; abolition or reduction of services; limitations on eligibility by population groups; and price. Each has its own advantages and disadvantages.

Queuing has been used by the British National Health Service to reduce the government's share of the costs of medical care. It has not been successful in providing quality care to all those who need it, but it has helped slow the growth of governmental costs. By extending queues until patients simply die prior to obtaining hospitalization, a crude form of hospital cost control has been obtained. Delays of weeks, months and even years have been well documented. In 1977, at the time of an Oklahoma State Medical Association on-site study of Britain's National Health Service, over five-hundred-thousand individuals were found to be waiting for elective surgery. Another effect of queues is to transfer governmental costs to private costs, the total cost burden being immeasurable but obviously extensive. We question whether the American citizen would tolerate an extensive queuing system. Queues are inefficient, and they transfer but do not significantly reduce total costs. They are certain to be unpopular.

Both the British and the United States governments have moved toward rationing by attempting to abolish or decrease services. These attempts have not always kept the patient's best interest in mind. For example, the federal government has attempted to stop the spread of computerized axial tomography (CAT). It is extraordinarily difficult to explain to a patient why a costly, painful, and dangerous pneumo-



encephalogram is necessary when a less expensive, much safer and noninvasive CAT scan would be possible. The British position is even worse. Britain's population, for appropriate cancer detection, requires seventeen million PAP smears per year. The National Health Service (NHS) has provided funding for only three million. It is one matter when, after consultation with his physician, a patient elects not to undergo a procedure because he does not perceive it to offer an adequate cost-benefit ratio; it is quite another matter when the service is simply denied because an autonomous third party has decided not to make it available.

A third rationing device is to limit eligibility for services by population groupings. Communist Party officials receive excellent medical care from well-trained physicians, while ordinary Soviet citizens must turn to less-well-educated personnel. This technique limits dollar costs but at a significant sacrifice of quality. For example, infant mortality rates in the Soviet Union are those of an undeveloped country and are rapidly *increasing*. Discrimination by population groups is a rational, non-price mechanism for constraining costs, but one unlikely to be well-received by Americans.

The fourth major rationing technique is pricing in a market economy. Only the market system places a decision concerning an individual squarely in the hands of that individual. It is also the method which has the best chance of being successful in controlling medical costs in this country.

There are two major but not insurmountable problems which make pricing ineffective in today's market. The first is our unattainable desire to provide equality of care, and the second (and most important) is the effect insurance has on individual incentive. Those who wish to provide equality of care must realize that this is an honorable but unattainable goal. All other necessities of life, food, clothing and shelter, are rationed on the basis of ability to pay. Only with respect to medicine does one hear that equal care must be provided regardless of income levels. It is because of our attempts to achieve this unachievable goal through the vehicle of insurance that we face our current cost dilemmas. Since no system can achieve equality of outcome, perhaps a system

which offers the brightest prospects for cost control while preserving the individual's freedom to decide is a better choice. That is the market pricing system.

Pricing would be a very effective control mechanism if only the patient had some incentive to care about prices. We know this from practical experience with millions of patients covering decades of service. We know, also, that our current insurance system has blunted price effects. Until a mechanism for individual sharing of the cost of medical care is developed, there is little chance of a market pricing system of control being successful.

#### IV. Competition and Medical Cost Control

Some individuals, basically sympathetic to a market system, have viewed increased competition among suppliers as the stimulus needed to control medical costs. The Oklahoma State Medical Association wishes to state its strong, unequivocal, and unanimous support of free and open competition in medical care. We feel just as strongly, however, that competition must be equal and open. In this regard, capital or operating subsidies for various forms of practice, and regulatory exemption for various forms of practice are examples of unfair competition.

Competition may serve to slow medical cost increases, but only if the individual has a substantial reason to choose the type of medical care which can decrease expenses. And the more remote the decision point from the time when services are provided, the less the stimulus to conserve at the time money is actually spent.

Proposals recently before Congress under the guise of "competition" bills may, therefore, contain some flaws. First, they are based on third party insurance principles. Whether commercial insurance or Health Maintenance Organization (HMO), the individual patient is relieved of cost-considerations when services are delivered — and this effect is inflationary. Second, most bills are designed to encourage HMO enrollment. Encouraging a subsidized form of care is not encouragement of open competition. More importantly, large-scale applications of HMO principles will decrease competition, will mandate extensive federal and state regulations, and probably will result in no cost savings at all.



Competition is a viable part of cost control, but its effectiveness will be limited unless the individual patient desires it and will respond to it.

## V. Cost Control Through a Market System Requires Individual Decisions

Decision-making by the *individual* is the real key to the market pricing system of control.

Rationing decisions imposed by *government* are often wrong and inevitably produce an enormous number of unforeseen problems. By its very nature, government rationing cannot distinguish between the needs of New York, New York, and the needs of Beaver, Oklahoma. It implies a homogeneity of geography and population which simply does not exist. Restriction of freedom of choice harms many, if not all. Similarly, although decision-making by insurance companies and other third parties may provide more flexibility, impersonal third parties are still making decisions which affect the health and life of single individuals. There is no reason to believe that impersonal third parties are better equipped to make these decisions than the informed individuals themselves.

Some consider the physician to be a logical, rationing-decision-maker, and it is true that the physician can play an exceedingly important role in cost containment. The voluntary effort, of which the American Medical Association is a principal sponsor, is one example. And if each patient, at the time of service, desired to limit costs, his physician could assist him in making an informed decision. In many ways the physician's relationship with his patient is similar to the attorney's relationship with his client. That is, the physician serves as an agent for his patient. So long as insurance abounds and individuals place a premium on quality rather than cost, the physician must inevitably fail as a custodian of moneys. His principal responsibility is to represent and care for his patient.

It is the patient, then, who provides the ideal decision-making authority for medical care rationing. It is his health that is to be affected and his priorities that are important to him. Successful rationing of medical services must depend upon the willing and active involvement of the individual patient who sees the benefits of effective and sensible rationing.

## VI. Factors Potentially Impeding Cost Containment

A number of impediments stand in the way of cost containment. Some of these impediments are obvious; others, however, may even be disguised as cost containment efforts. Our successes in containing costs will depend upon our ability to discern between the potentially successful and the potentially inflationary.

Additional federal financing and/or direct or indirect administrative control of the American medical care system would mobilize potent inflationary forces.

Administrative controls and accompanying federal regulations have the outward appearance of cost reduction mechanisms. Realistically, however, they often result in added inflation. Controls on physicians' fees, negotiated national fee schedules, conversion of fee-for-service to salaries-for-physicians, caps on hospital expenditures, and other similar schemes all can be interpreted as price controls. Both theoretical economics and the English and American experiences in medical care have proved that controls do not work. Medicine's experience is similar to that of the energy industry . . . controls may hold down costs artificially but their effect is only temporary. In fact, price controls through increased governmental regulations and enforcement costs often have an inflationary effect.

Expanded coverage and, thus, expanded government involvement in medical care carries perhaps the greatest potential for inflating costs. We can conceive of no human so callous as to wish financial hardship upon another solely because of illness. But any comprehensive program of insurance, *including catastrophic*, will inevitably prove to be profoundly inflationary. The classic American example can be found in the effects of federal sponsorship of the End Stage Renal Disease Program (ESRDP). Since this program was instituted gigantic increases in federal expenditures have occurred. The End Stage Renal Disease Program (ESRDP) alone should be clear and convincing proof that once price barriers are removed from services, our propensity to consume those services will be awesome.

Should our government choose to mandate catastrophic or other coverage despite its costs, we would have two recommendations. First, the federal role be limited to that of a reinsurer of private carriers. This would have the dual advantage of allowing private industry to



oversee the program and of giving the federal government the opportunity to withdraw if Congress found the results not to its liking. Second we recommend that the trigger point for catastrophic coverage be set equal to at least the average price of a new automobile. Any lower amount is really not insuring against catastrophe and is simply a proposal for comprehensive national health insurance on a piecemeal basis.

We would urge that expanded coverage not be attempted.

### VII. Proposals to Restrain Medical Cost Increases

Restraining cost increases involves solutions ranging from health education to increased cost sharing, from greater competition to decreased regulation. None is an answer in itself, but each may have a role.

Health education may have the greatest theoretical potential for lowering costs, but is difficult to implement. It would have potential if we could find the secret of achieving population-wide changes in lifestyles. There is general agreement as to the rudiments of a healthy life-style. Don't drink. Don't smoke. Don't overeat. Don't drive fast. Get adequate sleep. Exercise. Yet thousands and thousands of Americans continue to smoke cigarettes, drink alcohol, stay up late, eat junk food, and avoid most genuine forms of physical exercise. Health education is obviously a part of any potential solution to medical care costs. But at present it is not a major factor and may require many more years of striving for success.

Shifting direct federal beneficiaries (veterans, Indians, etc) to the private sector has its potential, but politically may not be possible. The private sector has the capacity to absorb these additions, which would simultaneously solve both well-publicized, private sector over-bedding problems and the government shortage of physicians and other medical personnel. The benefits to the overall population would be large, indeed.

Decreased regulation of medical care could result in sizable savings. To free our system from regulations founded on well-intentioned but incorrect theories, we propose a moratorium on the issuance of any new regulations. Simultaneously, for a three-to-five year

trial period, up to 50 percent of all regulations currently codified, selected with substantial input from those being regulated, could be eliminated. During that period, bureaucrats would have two primary jobs: one, rewriting the remaining regulations into end-result formats and two, studying the consequences of suspension of the other regulations. We acknowledge the importance of some regulations. But medicine is regulated to a point of significant inefficiencies. It is time that we reversed this process.

The most immediate, massive, and long-lasting vehicle for cost containment is individual cost sharing. Increased involvement of the patient in the payment of his medical bills would emphasize the need to conserve. If you pay for it or own it you care about it. If it is given to you free, you do not. This is the appreciable power of cost sharing.

Three proposed forms of cost sharing are of interest: indemnity insurance, copayment, and a new concept of "health investment."

Under indemnity plans a guaranteed dollar figure is provided for each medical service. If the individual is able to negotiate a lower rate, the indemnification becomes a source of income. If a more costly service is chosen, the patient/consumer is responsible for the difference. This clearly places the consumer into the decision-making process with a significant interest in protecting his own assets. It is a cumbersome system, however, since each procedure and service must be defined and categorized. The administrative overhead is high and payment disputes are common.

Copayment, based upon deductibles, a percentage of charges, or some combination thereof, requires an individual patient to make cost decisions and will provide an incentive for cost control *provided the decision point occurs at the time of consumption* of services. Once a consumer has made a before-the-fact election of first-dollar cost insurance, whether it be commercial insurance or a prepaid medical plan, the individual's propensity to consume at time of need is maximized. This is precisely the psychological pattern that must be interrupted. The propensity to save must be maximized at the time a service is needed. We strongly recommend as a matter of federal policy that first-dollar coverage be discouraged, and that at the time of use, cost-sharing decisions be encouraged.

Some traditional arguments against copay-



ment must be addressed. One has to do with equity, but full equality, as we have pointed out, is a goal impossible to achieve. Another argument is that copayment decreases access. But the irreducible fact is that unlimited access equates to unlimited costs. If costs are to be controlled, access must be limited.

One fallacious argument against a copayment policy is that there are no genuine incentives for decreased hospitalization costs. This argument is raised in the form of the medical emergency, particularly the trauma or heart attack victim, in which no choice of hospitalization is possible.<sup>1</sup> The actual number of emergency medical and surgical conditions in which no forethought as to cost can be given is remarkably small. Even an individual admitted at 11 o'clock PM with a heart attack can be moved safely the next day if he or she so wishes. Sound policy does not base general decisions on relatively insignificant exceptions. There are considerable incentives for the control of medical costs based upon copayment at the time of service.

A newly devised concept of health investment offers the potential for individual control of medical costs, and lacks many of the problems posed by alternatives. Conceived by the Louisiana State Medical Society, this approach involves the creation of individual savings accounts, the interest from which could purchase catastrophic health insurance, and the principal of which could provide first-dollar coverage, if desired. Incentives could be structured through favorable tax treatment of initial deposits and of an initial amount of interest adequate for major medical coverage. Medicare and Medicaid beneficiaries could be funded by fixed federal payments into individual trust accounts. If the money were not spent for medical services, some or all of it would belong to the individual. If medical services were needed, funds could be withdrawn from the individual's trust account to pay for them.

*Psychologically, the individual is spending his own money.* He has a great incentive to stay well and to avoid small or moderate claims. Money is being spent at the time of purchase. Administrative costs are nil. Yet medical costs are protected if there arises a need. There would be no need for federal or state bureauc-

racies, since funding would be totally in the private sector. No need for regulations since a market system would prevail. Of all of the cost sharing approaches, the concepts of the health investment plan come closest to meeting our views of maximizing cost savings while concurrently maximizing individual freedom.

## VIII. Recommendations

We have discussed the broad problems of contemporary medical care financing and possible solutions for some of the problems facing our medical care system. No single solution can be expected to eliminate rising costs, and some cost increases are inevitable with increased quality of care. Recognizing the limitations of each, however, the Oklahoma State Medical Association makes the following recommendations:

- A. The Oklahoma State Medical Association recommends that the federal government make no further investments in health insurance. We further recommend that the federal government explore avenues for divestiture.
- B. The Oklahoma State Medical Association recommends that bold and new departures toward the reduction of existing federal regulations be instituted without delay.
- C. The Oklahoma State Medical Association recommends that medical care for direct federal beneficiaries be shifted to the private sector.
- D. The Oklahoma State Medical Association recommends continued support of open and fair competition.
- E. The Oklahoma State Medical Association recommends that federal tax and reimbursement mechanisms be restructured in order to provide for cost sharing by patients at the time of delivery of medical services, preferably through an individual patient-controlled savings-insurance system.
- F. The Oklahoma State Medical Association recommends that prospective changes in the financing or organization of medical care be the subject of detailed and well-documented experimentation at the level of the individual state or states prior to adoption as national federal policy.

<sup>1</sup>Some argue that, since physicians do not have admitting privileges at all institutions, prechoice of physicians places automatic limits on the range of hospital choices. The more typical problem, in urban areas, is that patients switch physicians so as to be admitted to hospitals they prefer. The argument is not applicable in rural areas with single facilities.



## News From The Oklahoma State Department of Health

In Oklahoma, on the average, there is a birth every 11 minutes, a death every 19 minutes, an infant death every 14 hours, a neonatal death every 23 hours, a fetal death (stillbirth) every 19 hours, a marriage every 12 minutes and a divorce or annulment every 23 minutes.

On the positive side, the death rate continued a decrease which has been recorded for the past decade. The 1979 rate was 9.9 per 1,000 compared to 10.5 in 1970. Average life expectancy reached 71.9 years. Highest life expectancy, in excess of 75 years, was recorded in Roger Mills, Harper, Major, Ellis, Delaware, and Grant counties. Lowest life expectancy of 69 years or less was recorded in Beckham, Harmon, Blaine, Okmulgee, Carter, Choctaw, Okfuskee, and Pittsburg Counties.

The birth rate decreased from 17.6 in 1970 to 15.9 in 1978 but showed an increase to 16.9 in 1979. The infant death rate decreased from 14.1 in 1978 to 12.5 in 1979. The neonatal death rate was at a record low of 7.9 falling

below the previous low of 8.8 recorded in 1978.

Heart diseases, malignant neoplasms, and cerebrovascular accidents continue as the leading cause of death for all residents of the state. However, among white males, accidents rank as the third leading cause followed by cerebrovascular accidents. Among Indians, accidents rank third, deaths from cirrhosis of the liver as fourth and cerebrovascular accidents as fifth.

By age groups, accidents are the leading cause of death from one through 44 years of age and are the third ranking cause for the years 45 through 64. It is of significance to note that 87 percent of the state's 27,802 deaths claimed individuals 45 years of age and older and 18.4 percent of the deaths were among persons 85 years of age and older. Only 6.2% of all deaths were among persons under the age of 25.

Among deaths due to malignant neoplasms, cancer of the trachea, bronchus and lung were the most common single cause of malignant disease accounting for 28 percent of all cancer deaths. Cancer of the colon, female breast, and prostate of males and pancreas were next most frequently recorded.

Overall, the health record of the state shows improvement with remaining significant health problems focused on the conditions associated with an aging population. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR APRIL, 1981

DISEASE	APRIL 1981	APRIL 1980	MARCH 1981	TOTAL TO DATE	
				1981	1980
Amebiasis	—	4	2	2	13
Aseptic Meningitis	2	2	6	11	12
Brucellosis	—	—	1	1	2
Encephalitis, Infectious	4	—	2	10	5
Gonorrhea (Use Form ODH-228)	1305	1134	1139	4824	4433
Hepatitis A	21	39	24	92	142
Hepatitis B	18	11	19	69	59
Hepatitis Unspecified	20	25	15	60	86
Malaria	—	—	1	2	7
Measles (Rubeola)	2	170	1	5	347
Meningococcal Infections	6	14	10	22	8
Pertussis	—	—	—	1	8
Rabies (Animal)	17	34	22	62	95
Rocky Mountain Spotted Fever	5	1	—	5	3
Rubella	—	—	—	—	1
Salmonellosis	24	17	22	88	49
Shigellosis	21	17	13	58	62
Syphilis (Use Form ODH 228)	24	11	23	70	31
Tetanus	—	—	—	—	—
Tuberculosis	22	24	30	94	94
Tularemia	1	—	1	2	—
Typhoid Fever	—	1	1	4	2



## OSMA Approves Action on Shortages of Nurses and Psychiatrists

Resolutions calling for the training of additional nurses and psychiatrists were among the many business items considered earlier this month by the Oklahoma State Medical Association House of Delegates. The House met at Shangri-La Resort in Afton, Oklahoma, in conjunction with the May 6-10 OSMA Annual Meeting. Among the resolutions which received approval of the House were two which dealt with the current nursing shortage. One, submitted by the OSMA Council on Medical Services, calls upon the OSMA to support all levels of nursing education and a second, submitted by the OSMA Council on Planning and Development, requested that the Oklahoma Nurses Association withdraw its support from any plan which would require a baccalaureate degree for entry into professional nursing. A third resolution which supported diploma nursing education was defeated.

The OSMA House also approved a resolution calling for a study of the statewide and national shortage of psychiatrists. A resolution introduced by the Council on Public and Mental Health pointed out that a severe shortage of psychiatrists exists in Oklahoma and that the number of persons entering psychiatric residencies is on the decline. The resolution pledged OSMA's support to efforts to solve this problem and called for the American Medical Association to study the national shortage.

In addition to business items, the OSMA House also selected new officers during the Annual Meeting. Officers for 1981-82 are: James B. Pitts, Jr., MD, Oklahoma City, president; John A. McIntyre, MD, Enid, president-elect; Floyd F. Miller, MD, Tulsa, immediate past-president; George Kamp, MD, Tulsa, vice-president; Armond H. Start, MD, Oklahoma City, secretary-treasurer; Larry Long, MD, Oklahoma City, speaker of the House of Delegates; Robert G. Perryman, MD, Tulsa, vice-speaker of the House of Delegates; Elvin M. Amen, MD, Bartlesville, chairman of the Board; Ray V. McIntyre, MD, Kingfisher, vice-chairman of the Board. Ed Calhoon, MD, was re-elected as a delegate to the AMA and James B. Eskridge, III, MD, was re-elected as an alternate delegate.

In other action, the OSMA House of Delegates also:

- Commended the medical staff and other personnel at George Washington University Hospital for the care they delivered to President Ronald Reagan, his staff and guards after the assassination attempt.
- Approved a resolution calling for legislation to be introduced in the Oklahoma Legislature which will "free the physicians of Oklahoma to provide methods of prevention of pregnancy to teenagers at risk, in accordance with their best medical judgement."
- Endorsed fluoridation of community water supplies.
- Endorsed a resolution supporting ambulatory surgical care.
- Approved a resolution calling for professional liability insurance premiums to reflect the "costs and risks of providing that insurance to each (risk) category in so far as feasible based upon accepted underwriting principles."
- Supported a resolution calling upon third party payers to reimburse patients equitably based upon free market forces.
- Approved a resolution supporting the American Association of Medical Assistants in encouraging OSMA members to support the AAMA by allowing their medical assistants to join the organization and when possible to lend financial assistance to facilitate their membership and participation.
- Approved a resolution calling upon physicians to refer patients to specific physicians and discouraging the practice of referring a patient from one hospital emergency room to another hospital emergency room.
- Turned down a proposal from the Oklahoma Foundation for Peer Review which would have cleared the way for the foundation to develop a program for conducting review in the private sector.
- Approved a substitute resolution calling upon the OSMA to conduct an in-depth study of methods by which the State of Oklahoma can insure that foreign medical graduates meet the same high standards as do graduates of Oklahoma-supported medical schools as a condition of licensure. This resolution also calls for an update of the

Oklahoma Medical Practices Act.

• Approved a position paper of the Oklahoma Physician Manpower Training Commission with the suggestion that a statement of support of the University of Oklahoma Tulsa Medical School be included as a part of the report.

*Reprinted from OSMA News.* □

## Winners of OSMA's 1981 Sports Events

Approximately 60 doctors and physician-spouses participated in the tennis and golf tournaments that were held during the 1981 OSMA Annual Meeting at Shangri-La, Afton, Oklahoma, in May.

Winners of each of the events are:

### OSMA Golf

#### Low Gross

1st place — Dr Edwin E. Rice, Oklahoma City

2nd Place — Dr Leon D. Combs, Shawnee

#### Low Net

1st place — Dr J. S. Chandler, Muskogee

2nd place — Dr Terroll G. Ramsey, Sapulpa

#### Closest to the Pin

1st day — Dr Edwin Rice

2nd day—Dr J. S. Chandler

#### Longest Drive

1st day — Dr Larry Long, Oklahoma City

2nd day — Dr Hal Vorse

### OSMA Tennis

#### Men's Singles

1st place — Dr Kenneth F. Coffey, Oklahoma City

2nd place — Dr Richard A. Liebendorfer, Tulsa

#### Consolation Round

1st place — Dr William K. Smith, Miami

2nd place — Dr Roger M. Atwood, Tulsa

#### Men's Doubles

1st place — Dr Coffey and Dr Farris W. Cogins, Oklahoma City

2nd place — Dr Larry K. Killebrew, Oklahoma City and Dr Chester W. Beam, Oklahoma City

#### Consolation Round

1st place — Dr Stanley R. McCampbell, Oklahoma City and Dr Clarence P. Taylor, Jr., Ada

2nd place — Dr Rex W. Daughtery, Pawhuska and Dr Leo Meece, Woodward

#### Women's Round Robin

1st day

1st place — Nancy Holsted, Kingfisher

2nd place — Gail Coffey, Oklahoma City

2nd Day

1st place — Nancy Holsted

2nd place — Joan McCampbell, Oklahoma City □

## World Medical Council Re-elects Steen

Lowell H. Steen, MD, chairman of the Board of Trustees of the American Medical Association has been re-elected as chairman of the World Medical Association Council (WMAC).

Doctor Steen was re-elected as chairman of WMAC after being appointed to the position last year to serve the unexpired term of the late Walpole Lewin, MD, of Great Britain.

The council is comprised of leaders from medical associations around the world. It meets on a biennial basis and its members discuss socioeconomic and scientific problems involving the medical profession. The United States is represented on the council by 52 separate medical societies.

Doctor Steen is also co-chairman of the AMA's Voluntary Effort program, a joint program of the AMA, the American Hospital Association and the Federation of American Hospitals.

Doctor Steen also serves as a clinical instructor at Stritch School of Medicine, Loyola University, Chicago and as a staff member at St Catherine's Hospital, East Chicago, Il. In addition, he has practiced medicine at the Whiting Clinic in Hammond, IN since 1953. □



## Munchausen's Syndrome — An Interesting Example

DAVID L. SMITH, MD, FACP

The patient, a 42-year-old white woman, was transferred to Presbyterian Hospital, Oklahoma City, Oklahoma, via helicopter on September 5, 1977. She had presented to a rural hospital with a ten-year history of cardiac difficulties. Her cardiac problems were said to have begun with a myocardial infarction in 1967 at age 32 years. She experienced progressive chest pain and dyspnea over the next several years and stated she underwent coronary artery bypass surgery in 1975 at age 40 years. Because of this history, and the development of chest pain, she was transferred to our facility with a provisional diagnosis of myocardial infarction. When seen in our coronary care unit, she gave a long and complicated medical and surgical history which included 37 different abdominal surgical procedures. Her medications included Lasix, 40 mg daily, Lanoxin 0.125 mg b.i.d.; aminophyllin 200 mg q 6 hours; Valium 5-10 mg q.i.d.; ephedrine sulfate  $\frac{3}{4}$  gr. b.i.d.; butabarbital  $\frac{3}{4}$  gr prn and Compazine suppositories 25 mg prn. One other notable fact was that she complained of severe emphysema which she stated was due to alpha-1 antitrypsin deficiency.

Physical examination revealed a blood pressure of 60 mm Hg systolic and a thready pulse of 110/minute. Scars of a hiatal hernia repair were seen but no thoracotomy scars were noted.

Laboratory data included normal cardiac enzyme levels,  $\text{CO}_2$ , 36 mEq/liter, and chloride 84 mEq/liter. Digoxin levels were 3.3 ng/ml (therapeutic, less than 2.0 ng/ml). BUN and creatinine levels were normal. Alpha-1 antitrypsin levels were 80 and 60 mg/cc (normal 200-400 mg/cc). Pulmonary function studies showed severe obstructive disease with restriction. EKG showed Wenckebach phenomenon. Chest x-rays were read as consistent with emphysema but showed no evidence of previous thoracotomy.

Because of the peculiar nature of the patient's illness and failure to find evidence of thoracotomy, a call was made to her personal physician in San Diego, California. He stated that the patient had never had coronary artery surgery. The operation she had called a bypass

procedure was in fact a hiatal hernia repair. The patient had a history of frequent admissions to California hospitals for chest pain and was never shown to have had myocardial disease. How she accumulated all her medicines was never adequately explained. When confronted with the evidence of the discrepancies in her history, the patient left the hospital against medical advice.

This case of Munchausen's Syndrome is reported to alert other physicians and to point out the problems which existed in this patient:

- (1) Real illness — Emphysema with alpha-1 antitrypsin deficiency.
- (2) Induced illness — excessive ingestion of digoxin and diuretics producing hypochloremic alkalosis with volume depletion and digoxin intoxication with serious alterations of cardiac conduction.
- (3) Utilization of modern transport procedures, ie, helicopter.
- (4) Munchausen's components — fraudulent history of myocardial infarction and coronary artery bypass surgery probably an effort to convince physicians of the need for helicopter evacuation and to justify her admission to a coronary care unit. □

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## Work of Oklahoma State Bureau Of Narcotics Outlined

Today there are more than seventy-eight hundred (7,800) physicians, hospitals, researchers, manufacturers and distributors registered with the Oklahoma State Bureau of Narcotics. This figure does not take into consideration the registered pharmacists, the registered or licensed practical nurses, which totals twenty-six thousand, three hundred (26,300) individuals. Each possesses a potential point of diversion of controlled substances into illicit channels.

The Oklahoma State Bureau of Narcotics (OBN) has placed a high priority in the area of combating diversion from legitimate sources with the development and dedication of resources to this investigative effort.

The Director of the Bureau, Mr Warren Henderson, is further charged in the Uniform Controlled Dangerous Substances Act to cooperate in establishing methods to assess accurately the effects of controlled dangerous substances as well as directed to cooperate in making studies and in undertaking programs of research.

One of the newest research programs that is now ongoing in the state of Oklahoma, in which registration with the Oklahoma State Bureau of Narcotics is required, is the distribution of THC capsules to study the effects of oral Delta-9-THC in chemotherapy-induced nausea and vomiting. Delta-9-THC is a Schedule I investigational drug and therefore requires the strictest adherence to Drug Enforcement Administration and Oklahoma State Bureau of Narcotics security regulations.

The Bureau feels it is important to make all physicians and interested hospitals aware of the research program and their eligibility for such a program. The Bureau is grateful to the Oklahoma State Medical Association for allowing it to use *The Journal* as an avenue for dissemination of information.

In order for a hospital to be considered eligible, an institution must be one of the following:

1. An NCI (National Cancer Institute) recognized Cancer Center
2. An NCI designated New Drug Study Group
3. A member of the Council of Teaching Hospitals

The Division of Cancer Treatment of the NCI may select additional hospital pharmacies in inadequately represented geographic areas as required. In addition, the institutions must employ a full-time hospital pharmacist; be accredited by the Joint Commission of Accreditation of Hospitals, and must provide both in-patient and out-patient pharmacy services.

To be eligible to prescribe Delta-9-THC, a physician must have experience in cancer chemotherapy and have current ONB and DEA Registration numbers. Interested physicians may contact a participating hospital and obtain an FDA-1573 Form. In addition, provisions are made in the NCI guidelines for obtaining Delta-9-THC for in-patients at a non-registered hospital.

An on-site inspection of the security provided for the Delta-9-THC capsules is made by Compliance Agents of the OBN and the DEA.

At this time, the Bureau has registered St Francis Hospital and Hillcrest Medical Center in Tulsa; as well as Baptist, Mercy, Presbyterian, and St Anthony Hospitals in Oklahoma City. Bass Memorial Hospital in Enid has an application pending.

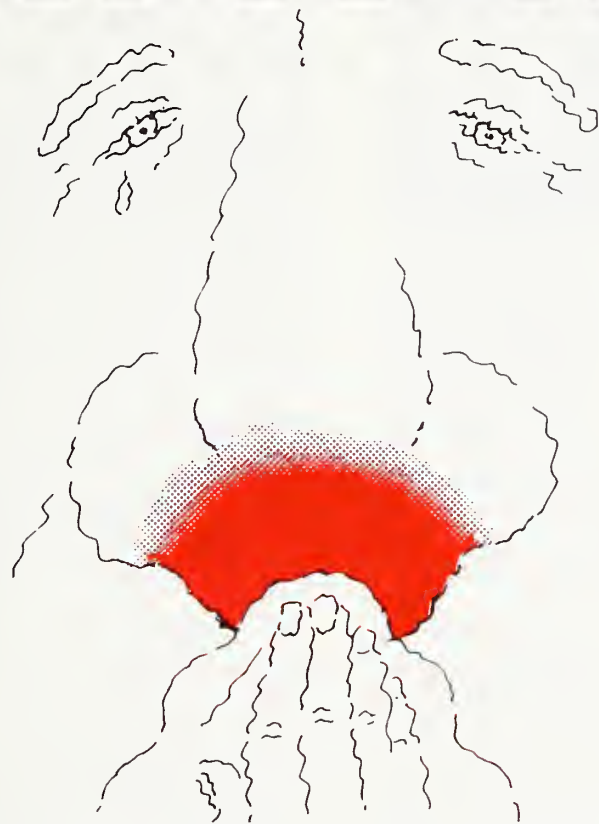
The OBN has enjoyed an excellent working relationship with the Oklahoma State Medical Association in many areas of education and problems in drug diversion and personal addiction. It is estimated that less than two percent of the health professionals become involved in violation of the drug laws. Your continued support in the effort to curtail the diversion of controlled substances is appreciated. □

## Arkansas-Oklahoma Cancer Forum Will Convene in September

The 13th annual Arkansas-Oklahoma Cancer Forum will be held on Thursday, September 10th and Friday, September 11th, at Fort Smith, Arkansas, Sheraton Inn. The Thursday morning session will be devoted to malignant melanoma. Thyroid cancer will be the subject of the Thursday afternoon meeting. A tumor board or oncology conference will be held Thursday evening. Friday morning will be devoted to various subjects important in the supportive care of the cancer patient. Eleven hours of category I CME credits will be awarded. Physicians and nurses are invited. Information concerning registration can be obtained by contacting Mr Paul McDaniel, American Cancer Society, 1312 N.W. 24th, Oklahoma City, OK. 73106. Tel: (405) 525-3515. □



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Doctor William M. Leebron presents Dr Hanna Saadah with the first annual Charlotte S. Leebron Memorial Award for Scientific Excellence. Pictured in the background is *OSMA Journal* Editor-in-Chief, Mark R. Johnson, MD, and Immediate Past-President, Dr Floyd F. Miller. Dr Saadah's paper entitled, "Washed Sputum Gram Stain and Culture in Pneumonia: A Practical Tool for the Clinician," was selected as the outstanding scientific contribution to the *Journal* in 1980. □

## Doctor Discovers Another Paper-Allergy

Doctors, do any of your office workers have a rash that just won't go away? If so, they could be allergic to paper.

For several years, skin specialists have realized that some individuals are allergic to ingredients in typing paper, carbon paper, paper used in duplicating machines and even newspapers. Now, another paper can be added to the list. The most recent allergy of this kind has been traced to carbonless copy paper says a report issued by the American Medical Association.

The report cites an article that has been included in a recent issue of the *Journal of the American Medical Association*. The article, written by a Pennsylvania dermatologist, reports a case involving a 21-year-old clerk who works in a college registrar's office. She suffered a skin rash for more than a year until the cause was traced to her handling of carbonless copy paper. As soon as she avoided contact with the paper, her skin rash cleared up. □

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# DRUGS AND DIRTY TRICKS

## Just One More Patient Before Lunch

The young man in the bakery uniform limped slowly into the examining room, the first time I saw him, and he was struggling manfully to conceal his pain. It was nearly noon, toward the end of a close-packed morning schedule, and the bread man had gimped his way into an emergency slot on the appointment list.

"Doctor," he said, "I've got to have some kinda pain pills to get me through the rest of the day. I've got to finish my bread route, and I've got this Achilles tendinitis that Dr Bonechips at Enid has been treating. It's gotten so painful today that I won't be able to finish my deliveries without a little help. Could you give me a prescription for some Darvons to tide me over until I can see Dr Bonechips?"

I know Dr Bonechips of Enid well, and respect his work, so after a few questions confirming that a treatment program was in progress, I did a quick and cursory examination and wrote a prescription for the desired drug. End of chapter one.

Chapter two took place some fourteen months later, and the bread man had changed somewhat. He still wore the same natty uniform and the panel truck with the bakery escutcheon was again in the parking lot. However, the man had become a bit irritable, and strangely enough he seemed a little unhappy when an efficient office staff produced a record of the prior visit. His ailment and proposed treatment had also changed; he now suffered from kidney stones and desired Demerol. He touched his right flank and arched his back and grimaced in the manner characteristic of the renal colic victim. "Dr Goodstream" (an Enid urologist) he said, "has found a kidney stone in me and he is going to operate and take it out as soon as I can get a substitute driver to take my route."

At this point, I sent Mr bread man to the bathroom for a urine specimen and I went to

the telephone to call the Enid urologist. Unfortunately, he happened to be away on vacation. His secretary obliged with the information that Dr Goodstream had indeed seen the bread man, *one* time — in the hospital emergency room, and that an IVP and cystoscopy had been scheduled, but never consummated.

The inconsistency in the story caused a momentary doubt that was soon completely resolved when a microscopic trace of blood was found in the otherwise normal urine specimen. The bread man's abdomen was tense but not rigid, and his anatomic description of ureteral pain would have passed the Urology Board examination. So I wrote a prescription for a dozen Demerol tablets and preached a short sermon on prompt removal of urinary stones.

However a glimmer of doubt was rekindled by the brief look of satisfaction that flickered across the bread man's face as he pocketed the Demerol prescription. Gad! No one had witnessed the urine collection!

After he had gone, I telephoned my colleague's office across town and asked: "Have you — by any chance — had a visit from the bread man with a kidney stone?" "No," he replied, "but the bread man was just here with a case of Achilles tendinitis — but nothing about kidney problems."

I then telephoned the clinic in the next town down the highway and found that the bread man had been there also, two days before — with a severe migraine headache. The bread man had conned three out of three physicians, using three different acts!

The next day I happened to visit the local supermarket at the very time that bread was being delivered and the bread delivery man was definitely not my "patient."

I have never seen the bread man again, but the experience forced me to rethink my position on analgesic prescriptions for drop-in patients, and to take a hard look at the many transient patients presenting themselves to our rural community hospital emergency room.

This introspection and many additional episodes have convinced me that the medical profession has a significant problem with what might be called "mobile drug abusers." Their numbers are legion but uncounted. They are mostly young adults, male and female, usually engaged part time in jobs that permit traveling or frequent changes in residence. Most of them understand medicine and its routine and they exploit the physician's compassion or weak-

nesses ruthlessly. They quickly learn to be excellent actors.

Most of the prescription drugs they get are quickly sold on the street for huge profits. Some are used for personal addiction. When these people are discovered or confronted, they merely shift their operational orbit to a new geographical location.

Some are under psychiatric treatment. Probably all of them need it, but referral attempts are always fruitless. The police have little to contribute until overt criminal acts occur. Underworld criminal connections to drug and burglary rings are probably prevalent but difficult to prove.

The long term psychiatric follow up of young adult drug abusers tells us that a high proportion of them (up to 70%) will reveal a major psychiatric or sociopathic defect when followed five years. Over two-thirds of these mobile drug abusers will be lost to society through psychosis, suicide, depression, or felony imprisonment.

At present, our profession can hardly protect ourselves from exploitation by these aggres-

sive con men (and women). The need to diagnose their disease is just now being appreciated by physicians. Our profession needs an interchange of information among physicians to objectify the diagnostic profile of a drug abuser. Perhaps then we might even find some way to help them toward health and back into a productive role in society. □

## OSMA Survey Team To Conduct Evaluation

A survey team from the OSMA Council on Medical Education (CME) will re-survey the Medical Products Systems, Inc, (a shared services organization) Dewey, OK, for continuing medical education accreditation.

In 1978, the shared services organization was denied accreditation because it did not have a physician-CME director. Later, the problem was corrected and in 1979 the shared services organization was awarded a two-year provisional accreditation. Now, Medical Products Systems, Inc is applying for the Council's full four-year accreditation which is unconditional. □

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	400.00	241.50	277.50	381.50	513.50	418.50*
	300.00	181.50	208.50	286.50	385.50	418.50
	200.00	121.50	139.50	191.50	257.50	279.50
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For full particulars, contact JANE GRIFFITH

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Doctor Orange Welborn is shown here receiving the 1981 A. H. Robins Award for outstanding community service. Shown with Dr Welborn is the representative from A. H. Robins Company. □

## CALENDAR OF EVENTS

**Presbyterian Hospital**, Oklahoma City, will sponsor the following continuing medical education programs. For additional information contact the CME Office at (405) 271-5100, ext. 2611.

### July 16-18

The keratorefractive surgery course will be held Thursday through Saturday, July 16-18, at the Dean McGee Eye Institute, 608 Stanton L. Young, Oklahoma City.

### Sept. 18-20

The Advanced Cardiac Life Support Provider Course will be held Friday through Sunday at the Sheraton Century-Center Hotel in Oklahoma City.

**The University of Oklahoma College of Medicine**, Oklahoma City, will sponsor the following continuing medical education courses. For additional information contact the CME office at the College of Medicine, (405) 271-2350.

### July 16-17

The Third Annual O'Donoghue Sports Medicine Seminar will be held Thursday and Friday at the Sheraton Century-Center Hotel, Oklahoma City. The program will begin at

8:00 AM on both days and end at 5:00 PM on the 16th and at noon on the 17th.

## Other Dates

### Sept. 10-11

The Arkansas-Oklahoma Cancer Forum will hold its 13th annual meeting, September 10-11, 1981, in Fort Smith, Arkansas at the Sheraton Inn Hotel. Additional details may be found on page 206 of this *Journal*.

### November 6-7

**The First Bi-Annual South Texas Clinical Diabetes Symposium will be conducted Friday through Saturday, November 6-7 in San Antonio, TX.** The American Diabetes Association will extend up to 7.5 credit hours of Category I credits for the Physician Recognition Award via the Liaison Committee for Continuing Medical Education. The American Academy of Family Practice will also extend as many as eight personal interest credit hours.

Topics to be addressed during the symposium include: Etiology of Diabetes Mellitus; Approach to the Diabetic out of Control; Home Glucose Monitoring and Insulin Pump; Approach to the Pediatric Diabetic; Approach and Treatment of Diabetic Emergencies; and Care of Pregnant Diabetics and others.

Registration fees which are \$75 per participant will be donated to the American Diabetes Association.

For more information and to register, contact Mrs Rose E. Vassey, 8042 Wurzbach, Suite 420, San Antonio, TX 78229 (512) 690-8612.

### December 10-12

The Section of Surgical Oncology, Department of Surgery, Washington University in St Louis, MO and the Missouri Chapter of the American Cancer Society will sponsor the CME program, Current Concepts in Cancer Therapy. It will be held Thursday through Saturday. Up to 19 hours of CME credit will be available through this course from the American Medical Association, American Academy of Family Practice and the American Oncology Association.

For more information contact the Office of CME, Washington University School of Medicine, Box 8063, 660 S. Euclid, St Louis, MO 63110 (314) 454-3873. □

## Miscellaneous Advertisements

INDUSTRIAL PHYSICIAN. Large, Multi-specialty clinic is seeking a general practitioner in the Industrial Section. Share the responsibilities of pre-employment physicals and industrial injuries with another physician. Regular office hours and excellent benefit package. Salary negotiable. Send curriculum vitae to Key B, *The Journal, Oklahoma State Medical Association*, 601 N.W. Expressway, Oklahoma City, OK 73118.

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NEED IMMEDIATELY — Oral Roberts University, School of Medicine Faculty. Psychiatry — department chairperson/faculty member, psychiatrist and one clinical psychologist. Internal Medicine — division head general medicine. Obstetrics & Gynecology — two faculty members (OB practice not necessary). Family Medicine — three faculty members, half-time practice, half-time academic. One family practice center medical director. Dean's Office — associate dean for clinical affairs. Oral Roberts University is an affirmative action/equal opportunity employer. Call or write Sydney A. Garrett, MD, Dean, Oral Roberts University School of Medicine, 7777 South Lewis, Tulsa, Oklahoma 74171, 918 492-6161, ext. 2402. □



## Deadlines

By Betsy Horowitz

Call this a commentary about doctors and deadlines. I don't usually speak about medicine because I am biased. I have been married to the same marvelous human being for nearly thirty years, and he also happens to be a doctor.

While I know absolutely nothing about medicine and prescribe a cold washcloth for anyone who asks what to do with their nasty headache, I do understand the psyche of a doctor. As a young bride working in pressure-pot newsroom of radio and television station WOR, I thought I knew what deadlines were. My husband, as a third-year medical student, was working in the emergency room at New York City's Bellevue Hospital, and the deadlines were minute-by-minute — but they were life and death.

Lest I get lost in sentimentality, the point of the commentary is that there is a difference in the deadlines that are met by those doctors, nurses, and ambulance attendants than in most other important deadline decisions. I believe the public saw that best when the President was first reported to be all right. The first report said he was not hit. It was updated, made accurate, and from that point on, we had a minute-by-minute update on the condition of the President and James Brady, who had a

bullet pierce his brain, and two other officers with bullets in their liver, and neck.

I hope the public will understand a little more that, although there are all types of sophisticated diagnostic tests that may be utilized by the doctors, in the end, the decision is theirs alone. It is life and death. The body is a finely-tuned watch, with no two alike. Each person is different. What is predictable may not occur. What is expected may not happen. You see the will of the person, the human spirit, the ability to withstand pain, and a determination to live have a lot to do with everything that happens to the patient.

While a business decision may be wrong and cost the individual the loss of money, a medical decision ill-timed and not carefully thought out could cost a life, or severe consequences. There is a difference between the decisions the EMSA ambulance attendants, the nurses, and the doctors make from any other type of decision! They, in the end, have to live with the results of what they do or don't do; decide or don't decide. And you know what? They are human beings, and it isn't easy.

That's what the real deadlines are all about.

*Betsy Horowitz is a commentator with KRMG Radio 74 in Tulsa, a member of the Swanson Broadcasting. "Deadlines" was aired over that station on April 14, 1981.*

The 1980 Annual Report of the Department of Human Services has just been released. This is a review of the programs and the expenditures for the department. Being a neophyte in this role of political medicine, it was a revelation to me to learn that more than one-third of this state's entire population directly benefits from its programs.



This department is in its 44th year and has as its constitutional governing board the Oklahoma Public Welfare Commission for Human Services, being more descriptive of its function. This board is composed of nine members appointed by the Governor to staggered nine-year terms. There are two physicians on the board—one is Leon Gilbert, MD, from Bethany and Carl E. Ward, DO, from Sayre.

The Director of the Department, for which all of medicine should be extremely grateful, is Mr Lloyd E. Rader — a remarkable and capable man who has held that position since 1951, when he was appointed by the commission.

As doctors we see only our narrow segment of interest in this department. Let me invite you to examine the annual report just to see all the areas of care to persons unable to provide for themselves who on account of immature age, physician infirmity, disability or other causes are afforded some semblance of relief. Now I, like most of you, feel that if a person is able to work he should, but there are thousands who are not in this category. We also know that flagrant abuses occur among the general population and yes, rarely we root out a bad apple among us, but thanks to the integrity of the great majority it's a smooth operation. After seeing all the demands on this department, the latest being the addition of the Oklahoma Memorial Hospital, it's a miracle that anything is left for doctors' fees. Expenditures for the 30 programs and 12 institutions DHS administers totaled 768.5 million dollars in 1980 (58% federally funded and 42%

state financed). All state funds come from the earmarked 2% state sales tax. For the 7th consecutive year, health care was **the** most expensive program. Of every \$1.00 spent by the department, 42.4 cents (a total of \$325.9 million) was paid for medical services. This is quoted from the annual report.

There is now a serious question about the department's financial ability to operate its programs. Some feel that the transfer of University Hospital to the department created the financial crisis. A review of legislative activities indicates that the problem goes much deeper than the hospital. Inflation has increased sales tax revenues but there has been a corresponding increase in the cost of operating the programs. Furthermore, the state legislature has, almost annually, increased the department's obligations and commitments without increasing its income. In fact, by state law, a number of goods and services have been exempted from the sales tax, costing the department several million dollars but also causing the loss of the federal matching moneys — compounding the problem. Three and one-half percent of the sales tax was unearmarked a few years ago and transferred to the General Fund. While this is to be restored, the department lost use of the money for six years. Oklahoma's prosperity has even contributed to the problem. Because of our unusually high employment rate the federal matching percentage will go down by more than \$18 million. Reagan's economic programs, while necessary for an ailing national economy, will have an adverse effect on the department funding.

Certainly, the financing of an adult teaching hospital with some basic responsibility for the medically indigent in the state fits within the framework of the Welfare Department's mission — perhaps even more so than some of its other programs. But to blame the hospital only for the financial troubles of the department is not consistent with the facts.

A handwritten signature in dark ink, appearing to read "J. B. Pitt". The signature is fluid and cursive, with a large initial "J" and a stylized "Pitt".



# Refractory Atrial Arrhythmias in a Patient with Coronary Arteriovenous Fistula

WILLIAM R. GILLOCK, MD  
JOSE R. MEDINA, MD, FACC, FACP

*A case of circumflex-to-coronary-sinus fistula is reported with a review of the literature. The unusual features of this case relate to the lack of a continuous murmur, the persistence of multiple, medically uncontrollable, paroxysmal atrial arrhythmias, and angina pectoris. The association of angina pectoris and coronary arteriovenous fistula as well as the therapy of the disease remain somewhat controversial.*

## INTRODUCTION

Coronary arteriovenous fistulas have been rare findings. The first case was reported by Krause in 1865 at autopsy. Angiographic advances in the last decade have led to reports of 363 cases to date, compared with only 52 in 1960.<sup>1, 2</sup> Only 15 cases of a fistula connecting

the circumflex artery and coronary sinus have been described. (Table I)

Most coronary arteriovenous fistulas are associated with a continuous murmur and very few involve an ischemic myocardium. To our knowledge, no case involving persistent atrial arrhythmias has been reported.

In this case report, a 61 year-old man suffering from recurrent atrial arrhythmias, having no continuous murmur and in whom a large coronary arteriovenous fistula was demonstrated, is reported. After surgical closure of the fistula, the postoperative course was plagued by multiple episodes of atrial arrhythmias refractory to conventional antiarrhythmic therapy and successfully abolished by verapamil and procainamide.

## CASE REPORT

The patient is a 61 year-old male, referred to the cardiology service of Hillcrest Medical Center in Tulsa, Oklahoma, for evaluation of a long-standing history of palpitations of sudden onset and sudden termination, diagnosed as paroxysmal atrial tachycardia. During his evaluation, the patient had an abnormal exercise treadmill test with ST junction depression suggestive of ischemia. (Fig I)

On admission, the patient was noted to be in no distress; however, premature ventricular

From Hillcrest Medical Center, 1120 South Utica, Tulsa, Oklahoma 74104.

Table I  
Clinical Features of Previously Reported Cases of Left  
Circumflex to Coronary Sinus Fistula

Case #	Refer.	Author	Year	Age	Sex	Symptoms	Murmur	Arrhythmia	Complication
1	19	Nagoya	1932	72	M	Precordial pain Palpitations Dizziness Dyspnea	NR	NR	MI, CHF
2	20	Davison	1955	58	F	CHF	Continuous	NR	NR
3	21	Wuketich	1955	61	F	NR	NR	NR	CHF
4	22	Kulpe	1960	37	M	NR	NR	NR	NR
5	23	Yenel	1961	75	F	Shortness of breath Chest pain	Systolic	NR	Intractable CHF
6	24	Haberman	1963	52	M	Epigastric/chest pain	None	NR	Death from aneurysmal rupture into pericardium
7	25	Berman	1965	47	M	Fever Headache	Systolic ejection	NR	Acute bacterial endocarditis
8	26	Raghib	1965	24 d	M	NR	NR	NR	Pathologically demonstrated multiple heart defects
9	27	Effler	1965	37	M	NR	NR	NR	NR
10	28	Kimbiris	1969	66	F	Exertional dyspnea Chest/abdominal	Systolic and early diastolic	NR	Acute bacterial endocarditis, MI
11	29	Harris	1969	64	F	Palpitation Orthopnea	Continuous	Premature ventricular contraction	Heart failure
12	30	Ogden	1971	62	M	None	Continuous	NR	Pathologically demonstrated MI; death from uncontrollable arrhythmia
13	31	Ogden	1971	33	F	CHF	Continuous	Developed after operation	None
14	32	Ogden	1971	3	F	None	Continuous	NR	None
15	33	Sabbagh	1973	3	F	None	Continuous	NR	None

#### LEGEND FOR TABLE I

CHF = Congestive heart failure  
MI = Myocardial infarction  
NR = none reported

contractions were noted. The blood pressure was 150/80 and the pulse was 80 per minute. Cardiovascular exam disclosed a well-localized apex impulse with no thrills or heaves noted over the precordium. The heart had a regular rate and rhythm with occasional premature beats. There was a Grade I/VI soft systolic ejection murmur that was heard along the left sternal border without radiation. An S<sub>4</sub> gallop was also noted. No continuous murmur was heard. The carotid pulses had a normal upstroke with a smooth decline. The jugular veins were not distended. There was no organomegaly or pedal edema present.

The patient had been receiving digoxin 0.25 mg daily, propranolol 20 mg/QID, and quinidine 200 mg QID. (Figure III) The serum digoxin level on admission was 2.0 ng/ml with a therapeutic range of 0.8 - 2.5 ng/ml. The serum quinidine level was 1.0 mg/liter with a therapeutic range of 1 - 3 mg/liter. The serum electrolytes were Na<sup>+</sup> - 145 mEq/liter (135-145, K<sup>+</sup> - 4.4 mEq/liter (3.5-5.5), Cl<sup>-</sup> - 103 mEq/liter (95-105), CO<sub>2</sub> - 29 mm/liter (24-32), BUN 16

mg% (10-20) and glucose mg% 132 (65-130). The effective thyroxine ratio was 1.09 with a normal range of 0.86 - 1.13.

Coronary arteriovenous fistulas are believed to result from defects occurring during embryogenesis. In work performed by Grant, it was demonstrated that the primitive blood vessels originate from angiogenic cells within the splanchnic mesoderm.<sup>4</sup> The angiogenic progenitor cells form both endothelial-lined spaces and blood cells within the primitive muscle walls of the developing heart. Later the endothelial-lined spaces progress to form an epicardial plexus of vessels. Gradually the cardiac veins appear from the sinus venosus and later the coronary arterials appear as outgrowths from the base of the aorta. The endothelial sinusoids now connect the coronary arteries with the coronary veins. Further maturation of the muscle wall compresses but does not obliterate the sinusoids. Apparently, coronary arteriovenous fistulas result from failure of the sinusoids to close.

With the small number of cases, the natural



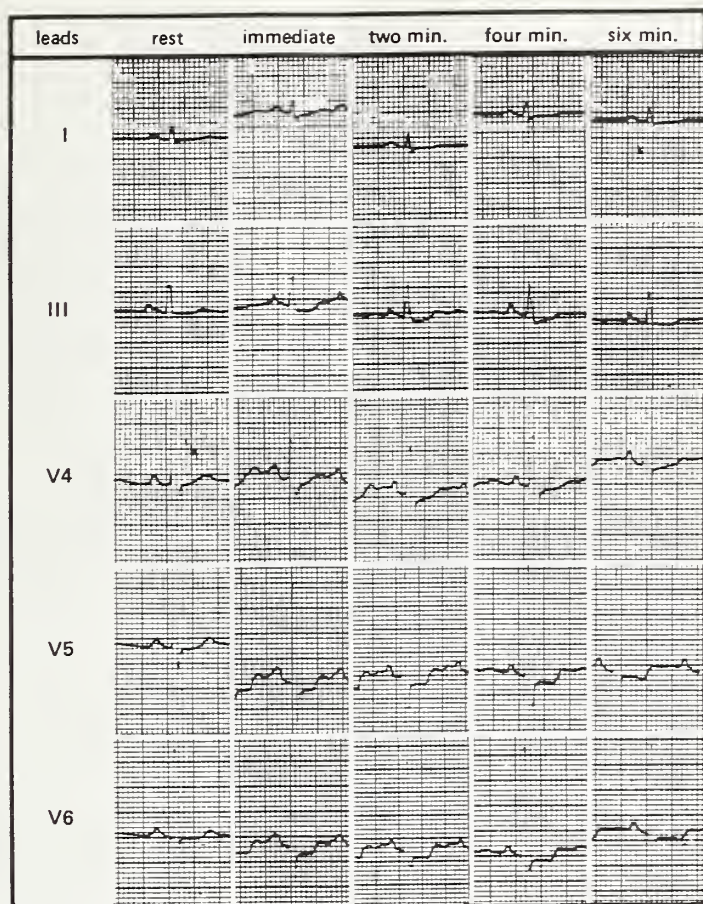


FIG I. Exercise treadmill test

history of coronary arteriovenous fistulas is not well understood. In a survey of 150 patients with isolated coronary arteriovenous fistula performed by Daniel, 55% had symptoms relating to the fistula.<sup>5</sup> The most common was congestive heart failure in 14%. Symptoms of congestive heart failure were noted to occur either before the age of one year or after the age of twenty years. Angina or non-specific chest pain was the major presenting complaint in 7%; however, it appears almost always with atherosclerotic coronary vascular disease.<sup>6</sup> Bacterial endocarditis occurred in 6% of the group. The remaining 28% had symptoms relating to dyspnea, fatigue, or frequent upper respiratory tract infections. Almost half, 45%, were evaluated for the presence of an asymptomatic murmur.

Surgical ligation has been the treatment of choice since 1947 when the first successful operation was performed by Biorck and Crafood on a patient thought to have a patent ductus arteriosus. Since then, over 116 patients have undergone surgical closure of the coronary arteriovenous fistula with only four deaths reported.<sup>7</sup> Indications for surgery are numerous and tend to be related to increasing shunt fractions within the fistula.

Jaffe studied the long term follow-up surgically and medically treated patients with this anomaly.<sup>8</sup> In those undergoing surgical ligation, recatheterization failed to disclose a consistent change in right-sided cardiac chamber pressures from preoperative studies. Also, the reduction in blood velocity did not appear to reduce the size of the artery connecting the fistula.

It is thought that coronary arteriovenous fistulas may predispose to premature coronary atherosclerosis by shear-induced intimal damage. Since shear stress is inversely related to vessel diameter, large tortuous arteries (like those of coronary arteriovenous fistulas) would not seem to promote atheroma formation. Shear stress of the magnitude necessary to induce intimal damage would occur only in small, narrow fistulous communications between the feeding vessel and cardiac chamber. Thus, non-operative medical management of narrow fistulous communications would favor closure by atheromatous plaques. This, in fact, happened in one patient.

In Jaffe's group of medically managed coronary arteriovenous fistula patients followed for an average period of ten years, cardiac studies

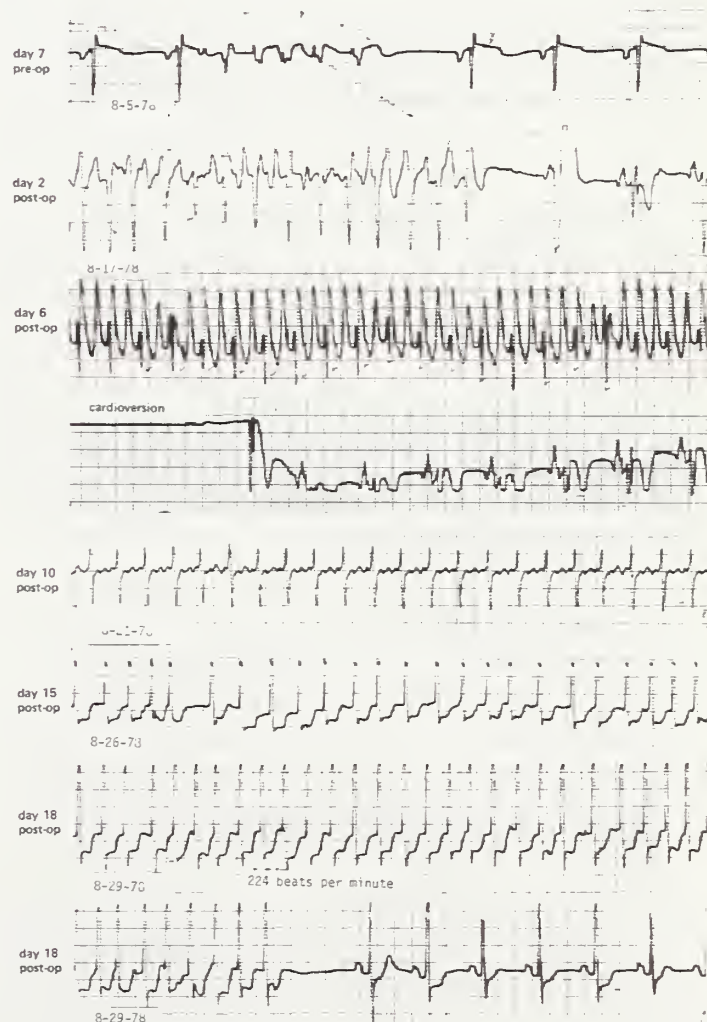


FIG II. Patient's monitored electrocardiogram



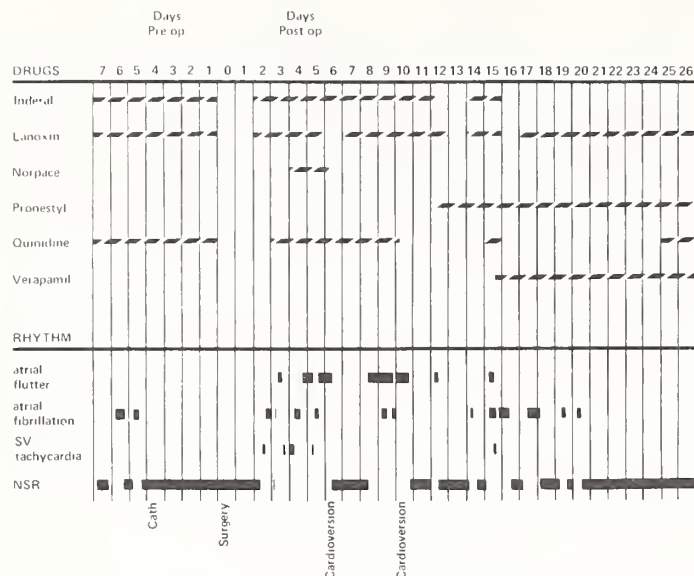


FIG III. Effect of medication upon arrhythmias during hospitalization

NSR = normal sinus rhythm  
SV = supraventricular

demonstrated continuing stability. This group concluded that with the limited knowledge of coronary arteriovenous fistulas, it would seem reasonable to operate on only those individuals with large fistulas resulting in ventricular overload. However, it remained less clear whether those individuals with small shunts should be managed medically or surgically, since the development of atheromatous plaques in the proximal circulation was not known.

The murmur is the most consistent physical finding and it is often mistaken for that of a patent ductus arteriosus.<sup>9</sup> Differential points in the two murmurs are the typical occurrences near the second heart sound of the patent ductus arteriosus murmur as compared with the atypical location and either systolic or diastolic accentuation of a coronary arteriovenous fistula. J. K. Perloff<sup>10</sup> stated

In practical consideration, a murmur that has a distinctly louder systolic or diastolic component serves to differentiate a coronary arteriovenous fistula from a patent ductus arteriosus. If the murmur has a peak intensity near the second heart sound, then no useful demarcation exists, however, the location may be useful.

In our case presentation, we describe a patient with an abnormal treadmill response suggestive of ischemia, associated with a large coronary arteriovenous fistula diagnosed by cine coronary angiography and plagued by

multiple episodes of atrial arrhythmias that were refractory to conventional antiarrhythmic therapy, but successfully treated with the combination of digitalis, verapamil, and large doses of procainamide.

The patient's electrocardiogram did not show the findings of a shortened P-R interval and Delta wave characteristic of the Wolff-Parkinson-White Syndrome, or shortened P-R interval and normal QRS interval, referred to as the Lown-Ganong-Levine Syndrome, both of which are associated with paroxysmal supraventricular tachycardia.<sup>11, 12</sup>

During the next several days, episodes of atrial flutter and fibrillation occurred with ventricular responses in excess of 170 per minute. (Fig II) No symptoms or hemodynamic deterioration were noted. The blood pressure during attacks ranged between 100/50 and 118/66. Intravenous digoxin and oral propranolol were given to terminate the arrhythmia.

On the fifth preoperative day, angiocardiology was performed which disclosed poor left ventricular function with a left ventricular end-diastolic pressure of 14 and an ejection fraction of 30%. Coronary angiography disclosed a left anterior descending artery which appeared normal. However, it was noted that the circumflex artery appeared tortuous and dilated. After injection of contrast medium, opacification of the coronary sinus, right heart, and pulmonary artery occurred, indicating a large left-to-right shunt. (Fig IV) Right heart catheterization revealed a step-up in oxygen saturations at the atrial level. The oxygen saturations were: superior vena cava, 72%; right

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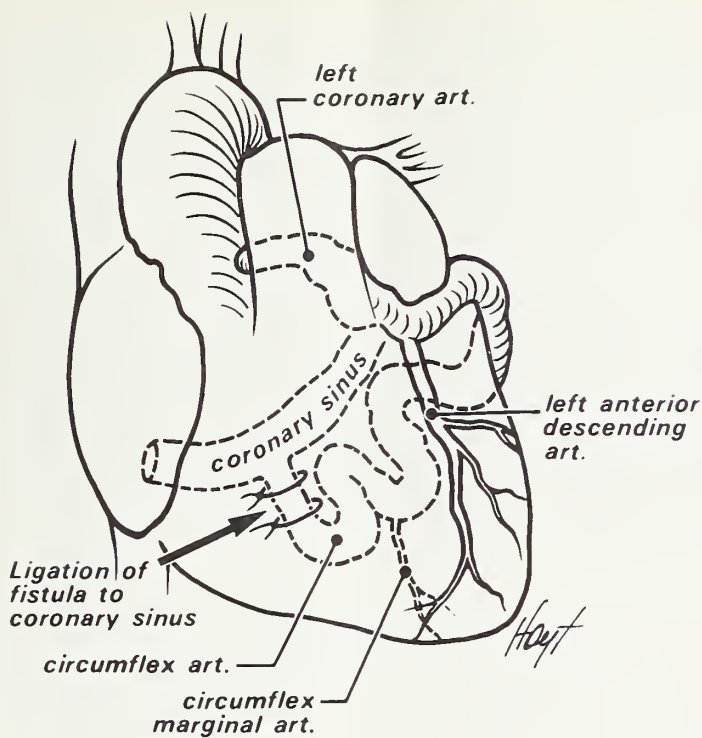


FIG IV. Artist's renditions of patient's coronary circulation

art. = artery

atrium, 85%; and pulmonary artery, 86%. The right-sided pressures were normal.

Operative ligation of the fistulous vessel was performed on the eighth hospital day. The circumflex artery was approximately two to three cm in diameter with collateral vessels originating from this vessel. A thrill was noted most prominent four cm from the entrance of the coronary sinus into the right atrium and it was thought that this was the only anomalous communication.

A ligature was placed around the fistulous tract approximately two to three cm proximal to its entrance into the coronary sinus. At surgery, pre-ligation oxygen saturations included: right atrium, 85% and pulmonary artery, 86%. Post-ligation saturations were: superior vena cava, 72% and right atrium, 79%. The patient came off cardiopulmonary bypass without incident and in sinus rhythm. He progressed without incident in the post-operative period except for persistent atrial arrhythmias which were unresponsive to digitalization, and 142 mg/day of propranolol. Quinidine was later added.

On the fourth postoperative day, the patient experienced a 36-hour run of atrial flutter-fibrillation with a variable ventricular response to 120 per minute, at times exceeding 170 per minute. (Fig II) Medication given that day included 224 mg of propranolol, 0.625 mg

digoxin, 800 mg quinidine, and 750 mg of disopyramide. An electrocardiogram disclosed widely prolonged QRS complexes consistent with a quinidine-toxicity-like effect. During the attack, the patient noticed a sensation of "fluttering in the chest." Hemodynamic function remained stable with blood pressures ranging from 90/60 to 120/90. SMA-6 was normal. Arterial blood gases with patient on 40% oxygen showed a pH of 7.43,  $pO_2$  of 78, and a  $pCO_2$  of 38. Serum digoxin level was 1.0 ng/ml and was raised to 2.0 ng/ml by the next day after digoxin supplementation.

As arrhythmias persisted despite this regimen, cardioversion became necessary, and normal sinus rhythm returned immediately thereafter. (Fig II)

He remained in sinus rhythm with only occasional premature ventricular contractions, while maintained on digoxin, propranolol, and quinidine until the eighth postoperative day when a prolonged episode of atrial flutter recurred. (Fig II) Intravenous digoxin, 144 mg propranolol, and 800 mg quinidine failed to terminate the arrhythmia. Serum digoxin level was 2.1 ng/ml but a subtherapeutic level of quinidine was reported at 0.5 mg/liter. An intravenous pacemaker was employed but the arrhythmia was refractory to overdrive atrial pacing and cardioversion became necessary.

Throughout the ensuing days, episodes of atrial arrhythmias recurred. On the twelfth post-operative day, procainamide 500 mg every four hours was added, digoxin was continued while propranolol and quinidine were discontinued.

The arrhythmias persisted and an experimental anti-arrhythmic agent, verapamil (Isoptin<sup>R</sup>) was obtained from Knoll Pharmaceutical Company. Administration of the drug began on the fifteenth postoperative day in the amount of 80 mg three times a day. Digoxin and procainamide were continued; propranolol was not.

On the eighteenth postoperative day, a 24-hour episode of atrial fibrillation occurred. (Fig II) The dosage of verapamil was increased to 320 mg/day and the procainamide dosage was increased to 500 mg every three hours. The heart converted to sinus rhythm.

As increasing doses of verapamil were used, mild hypotension was noted. Doses were later reduced to 80 mg four times a day.

After some occasional atrial ectopic beats on the twenty-first post-operative day, the heart



remained in sinus rhythm for the remaining six days of hospitalization.

#### DISCUSSION

Only lately has the use of coronary arteriography assumed a dominant role in the discovery of coronary arteriovenous fistulas. The incidence of coronary arteriovenous fistulas is estimated to be one in every 500 individuals undergoing arteriography.<sup>3</sup> In a comprehensive review of 363 cases of coronary arteriovenous fistulas by Levin, the right coronary artery was the origin of the fistula in 50% of the cases, the left coronary artery in 42%, and from both in 5%. Drainage sites were the right ventricle in 41%, right atrium in 26%, pulmonary artery in 17%, coronary sinus in 7%, left atrium in 5%, left ventricle in 3%, and the superior vena cava in 1%. From this study, it appears that while origination occurs almost equally from both arteries, drainage occurs in over 90% to the venous side of the heart. Associated congenital anomalies are believed to occur in 20% to 30% of the individuals with coronary arteriovenous fistulas. The more common congenital anomalies include aortic and pulmonary atresia and patent ductus arteriosus.

From constant electrocardiographic monitoring it was determined that each instance of supraventricular tachycardia was initiated by a paroxysmal atrial contraction. Re-entry thus appeared to be the mechanism of arrhythmia.

The re-entry pathways are dependent upon a dual pathway with one pathway possessing a one-way block. These prolonged refractory periods are thought to be mediated by the slow phase, calcium-mediated phase 2 repolarization of the action potential.<sup>13</sup>

It is thought that as disease, anoxia, or congenital abnormality occurs, the sodium channels that mediate the fast, phase 0 depolarization of the action potential are inactivated. The action potential is then partially or wholly mediated by the inward movement of calcium and the action potential assumes the characteristics of slow current depolarization.<sup>14</sup> The characteristics of slow channel conductance are a slow rate of depolarization and a low amplitude action potential which results in extremely slow conduction. The slow current is transmitted with a low margin of safety, thus impediments to forward movement easily re-

sult in unidirectional block leading to cardiac arrhythmias.

With the limitations of available antiarrhythmic medication, treatment is typically empirical rather than rationally based on pathophysiologic mechanisms. Digoxin was administered in an attempt to produce A-V block resulting in slower ventricular response. Even at therapeutic levels, this was not possible. Propranolol was added in attempt to slow catecholamine-induced increased diastolic depolarization rate. Quinidine and procainamide were added to slow conduction and prohibit re-entry. These initial steps failed.

The final step involved the use of arrhythmia-specific medication. A new drug, verapamil (Isoptin<sup>®</sup>), was added to the medication. The proposed mechanism of verapamil involves an inhibition of the inward calcium movement occurring during phase 2.<sup>15</sup> Verapamil also tends to act similarly to digitalis by prolonging conduction through the atrio-ventricular node. The addition of verapamil necessitated the removal of propranolol from the therapeutic regimen since the two act synergistically in producing decreased cardiac output.

By using digitalis, procainamide, and verapamil, the arrhythmias were brought under control. The only problem encountered in the use of verapamil was a dose-related fall in blood pressure. No other immediate side effects were noted. From a review of the published English literature in cases of coronary arteriovenous fistulas originating in the circumflex artery and reaching the right atrium via the coronary sinus, we were unable to find any case of a documented refractory atrial arrhythmia. Only in two cases were "palpitations" mentioned among the presenting symptoms, whereas chest pain and congestive heart failure were more frequent.

Since surgery did not prevent the recurrence of the arrhythmias, it is likely that the arteriovenous fistula was only a coincidental finding rather than the cause.

This case is unique in that there is absence of a continuous murmur despite a large left-to-right shunt.

Coronary A-V fistulas appear questionably related to angina since only 7% of the patients with fistulas have angina or a non-specific chest pain, and the onset of this chest pain chronologically parallels that seen in the general population. Typically, the angina may ap-



pear as more blood is routed from the myocardium to the fistula in a coronary-steal syndrome as described by Neufield. However, since the individuals become symptomatic long after the development of the congenital lesion, atherosclerosis probably plays at least an equal role in its pathogenesis.

Lately, several cases have been described of individuals with medically uncontrollable angina, with normal coronary arteries and small shunts.<sup>16-18</sup> In each case, surgery was performed, closing the fistula, and each patient remained symptom-free several months into follow-up.

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# Aortic Aneurysm Complicating Staphylococcal Pericarditis

(After Multiple Pericardiocentesis)

MARION K. LEDBETTER, MD, FACC

*If cardiac tamponade recurs following pericardiocentesis, surgical drainage should be instituted.*

Pericardiocentesis may relieve cardiac tamponade; it also yields material for establishing the cause of pericardial disease. Inadvertant puncture of the myocardium is usually tolerated and complications rarely occur.<sup>1</sup> The mechanism by which a mycotic aortic aneurysm may have been caused by pericardiocentesis of a child is considered.

## REPORT OF A CASE

A ten-year-old girl was admitted to the hospital after nine days of back pain, and four days of headache, pleuritic chest pain and daily temperature elevation to 103°F. She vomited several times on the day of admission; breathing had become rapid and labored.

Examination revealed cyanosis even though the patient was breathing oxygen, and dis-

tended cervical veins. The heart rate was 160 per minute with thready peripheral pulses, frequent skipped beats and systolic blood pressure varying from 65 to 90 mm Hg. The heart sounds were distant; there was no murmur, friction, or heave, and no hepatomegaly or edema.

A chest radiograph revealed a huge cardiac silhouette without pulmonary infiltration. Elevated ST segments in the electrocardiogram in leads II, III, AVR and V6 indicated an injury process suggesting the diagnosis of acute pericarditis.

Pericardiocentesis at the bedside via the left xiphoid approach yielded 500 cc of straw-colored serous fluid and immediate relief of symptoms. One hundred cc of air was instilled to facilitate a pneumopericardiogram. (Fig 1) The pericardial fluid revealed protein 4g, 11,900 WBC's/cu mm with 97% polymorphonuclear leukocytes and no bacteria on the Gram stain. Large doses of penicillin G and methicillin sodium were started intravenously. Thirty-six hours later the pericardial fluid had grown *Staphylococcus aureus*, highly sensitive to penicillin. No primary site of infectious disease was detected. There was rapid reaccumulation of fluid with signs of recurrent tamponade requiring three additional pericardiocenteses by the same route during the three



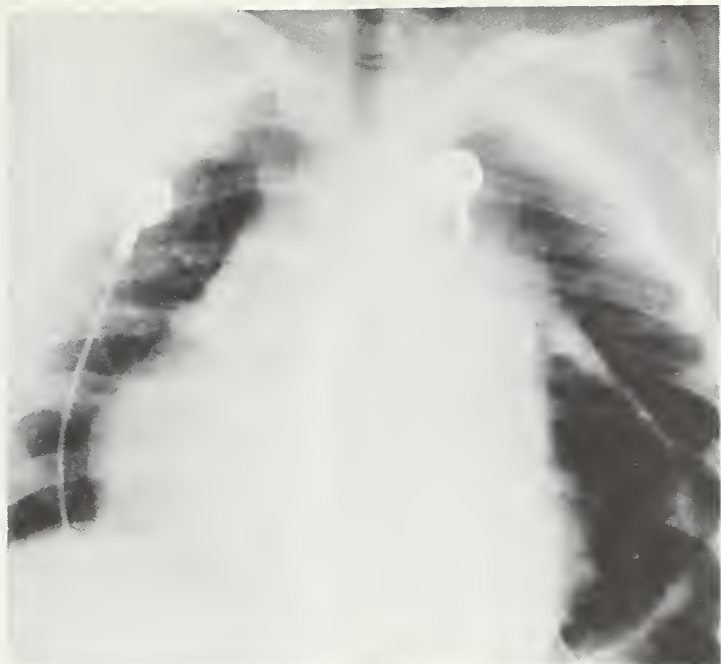


Fig 1. Pneumopericardiogram, right lateral decubitus view, after pericardiocentesis and installation of air into the pericardial space.

days following admission. A fourth pericardiocentesis was performed with some difficulty requiring three punctures and yielding several milliliters of serosanguineous fluid.

On the fourth hospital day the pericardial space was drained surgically and tubes were inserted, utilizing the subxiphoid transdiaphragmatic approach. The patient became afebrile and asymptomatic, and the tubes were withdrawn after five days. Intravenous methicillin sodium was continued for one week and penicillin G for one month, followed by orally administered penicillin G for one additional week. The electrocardiogram had prog-



Fig 2. A bulge on the upper right heart border, four months after the onset of illness.

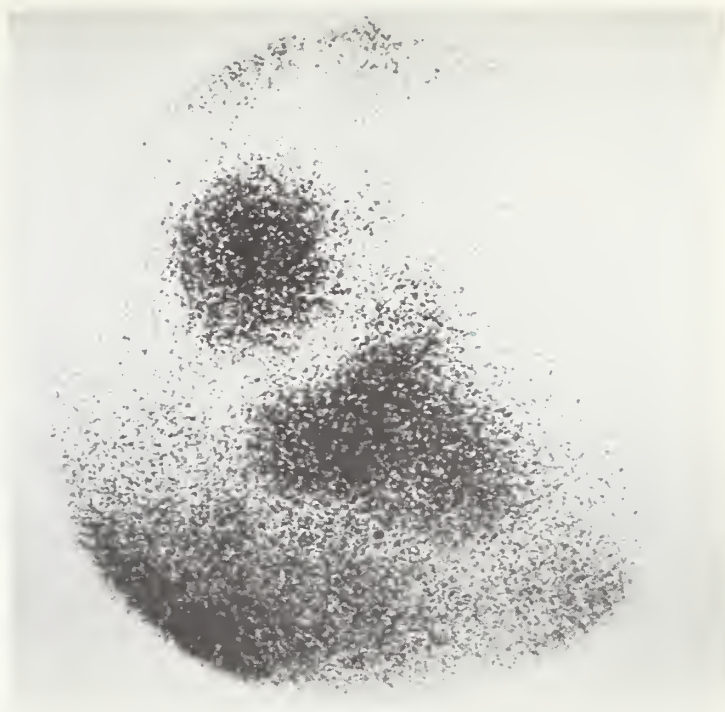


Fig 3. Technecium 99m scan. Cardiac pool, (center); hepatic pool, (lower right); extrinsic vascular mass, (upper right heart border).

ressed from the acute to the chronic phase of pericarditis in five days and had become normal in one month. The chest radiograph showed a normal cardiac silhouette. The girl was discharged and remained asymptomatic, taking no medication.

Four months after the onset of illness, routine follow-up evaluation revealed pulsations at the cardiac base, but no bulging of the chest wall, normal heart sounds and no murmur. A chest radiograph (Fig 2) revealed a bulge on the upper right heart border. Technetium (Tc99m)-labelled human serum albumin<sup>2</sup> injected intravenously for a scan of the central circulation showed the bulge on the cardiac silhouette to be a vascular mass in the region of the ascending aorta. (Fig 3) Angiocardiography revealed an aneurysm in the anterior mediastinum contiguous to and filling from the ascending aorta proximal to the innominate artery. (Figs 4, 5) Utilizing a verticle sternotomy approach with cardiopulmonary by-pass and mild hypothermia, a saccular, false aneurysm measuring 7 x 8 cm was identified and resected from within the pericardial space. It had been attached to the ascending aorta by a stem measuring 1.5 x 3.0 cm. A woven Dacron graft was sutured over the neck of the aneurysm. The specimen was a laminated, thrombotic mass free of purulent material and without a vessel wall. Cultures were negative. The cardiac silhouette was radiog-

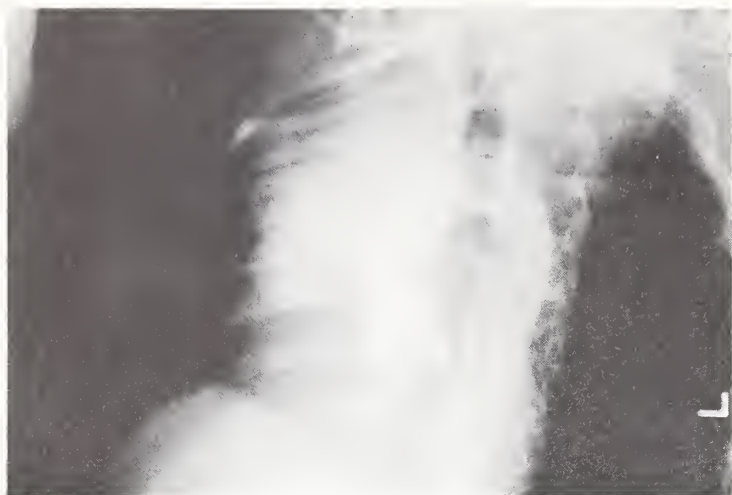


Fig 4. Lateral aortogram with filling of an aneurysm arising from the aorta proximal to the innominate artery.



Fig. 5. Aortogram two seconds after Fig. 4. The aneurysm remained opacified after the aorta cleared contrast material.

raphically normal again and the child has remained well three years later.

#### COMMENT

DeBakey and Noon<sup>3</sup> classified aneurysms of the thoracic aorta as to morphology, location, and etiology. The lesion of our patient was of a sacciform nature in the ascending aorta. An infectious etiology secondary to the septic process surrounding the heart and great vessels was presumed. However, the manner in which the aneurysm developed was conjectural. Since the aorta is highly resistant to infection either from adventitial or intimal invasion, the development of a mycotic aneurysm is considered to require a pre-existing lesion of the internal elastic membrane and a septic process, usually infective endocarditis.<sup>4</sup>

In children a mycotic aneurysm may form distal to the site of coarctation of the aorta where the jet stream has traumatized the in-

tima, and when complicated by aortitis of a bicuspid valve or endocarditis.<sup>5</sup> Fricker<sup>6</sup> et al reported seven cases of aortic aneurysms in children. Three of these seven cases were associated with coarctation of the aorta and the other four were located in the ascending aorta. These latter cases were characterized by: case 1), a mycotic aneurysm following an aortic valvulotomy; case 2) Marfan's syndrome; case 3), sinus of Valsalva aneurysm, and case 4), secondary to trauma.

The manner in which our patient's illness became complicated by an aortic aneurysm is considered. She did not have evidence of a loculated disease process in the pericardium or a mediastinal abscess. Once surgical drainage of the pericardium had been accomplished, the clinical course became benign. The aortic root lies at the approximate middle of the heart shadow, and it is possible that the ascending aorta was punctured during the last needle pericardiocentesis prior to surgical drainage of the pericardium. The combination of infection and trauma involving all layers of the aorta presumably allowed a false, mycotic aneurysm to form slowly. In this instance, it had become evident radiographically on routine examination four months after the onset of the acute illness. The natural course would have been rupture into the pericardial space with acute tamponade.

The possibility that pericardiocentesis can cause vascular injury and aneurysm formation indicates that this procedure should be limited to one time for the relief of tamponade and to establish the cause of the disease. Fluoroscopic and electrocardiographic control for the proce-

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ture are desirable. The left parasternal (fifth intercostal space) approach may be safer than the xiphoid route.<sup>7</sup> M-mode echocardiography may be useful in this determination, and two-dimensional echocardiography<sup>8</sup> may delineate loculation if present. When tamponade recurs after a single pericardiocentesis, drainage by surgery is indicated. In all cases of infectious pericarditis, the latter procedure is considered essential for prompt resolution of the disease.<sup>9</sup> The transdiaphragmatic approach<sup>10</sup> is preferred since it avoids contamination of the pleura and allows dependent, open drainage.

#### ACKNOWLEDGEMENT

Dr Louis C. Bernhardt performed the transdiaphragmatic pericardiotomy and the aneurysmectomy.

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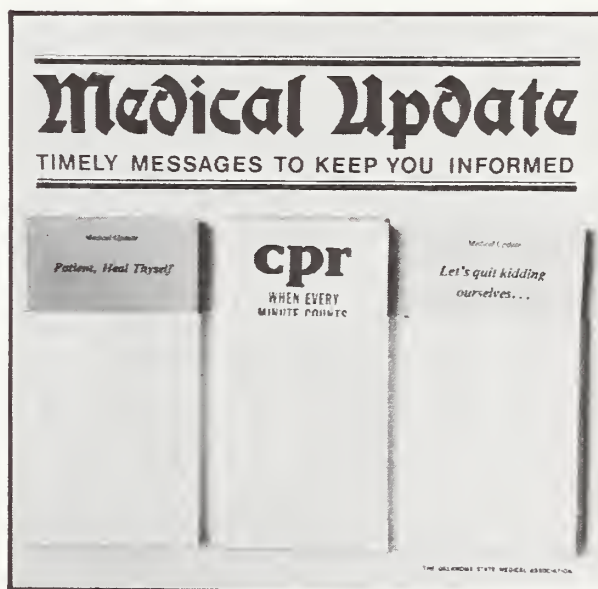
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## Full-Time Staffing in Emergency Departments: Boon or Bane

MICHAEL T. McEWEN

*Emergency department physicians and private practitioners often share the responsibility for the care of a single patient. The quality of that care will depend on good working relationships between these physicians, and it may be desirable to establish a formal, documented system of patient disposition.*

Two recent events have spurred the development of full-time staffing in emergency departments at hospitals across the United States. First, the establishment of emergency medicine as a board-certified speciality has enhanced the stature of emergency department practitioners and will serve as an inducement for new physicians to enter the field. Concurrent with this development has been the creation of emergency medicine residency programs at an increasing number of medical schools across the US. Because of these factors, it is only reasonable to expect that the supply of qualified emergency medical practitioners will continue to grow.

The second influence on the development of emergency medicine is the increasing awareness on the part of hospital governing boards

and administrators that an emergency department need not be a "loss center" for a hospital. As hospitals realize the profit-making potential of emergency departments, more are likely to invest the resources necessary to expand and improve emergency department (ED) service.

There is increasing evidence in the health care management field that the emphasis on emergency department development will continue. One company devotes its energies exclusively to comprehensive emergency department development and offers a range of services including physician placement, industrial relations, risk management, and marketing. Other health care management groups are beginning to focus on the potential of emergency departments and are beginning to develop their programs targeted at full scope emergency department management. These firms are beginning to realize that they must be more than "scheduling agencies."

Management studies have indicated that an active, efficient emergency department will generate up to 25% of the total admissions for a hospital and will be responsible for a large share of the ancillary service revenues at the institution (as a result of both the emergency department activity and the inpatient service which it generates). With this revenue-generating potential, it is easy to understand why hospitals will be increasingly interested in maximizing their emergency department business.



Since 24-hour-a-day, seven-day-a-week, physician-staffed emergency departments will probably be more available as a result of the emphasis on emergency service development in local hospitals, is it possible for private practitioners to utilize this service in an effective and meaningful way? The answer to that question is a qualified "yes."

There are a number of situations in which a private practitioner might be able to use a full service emergency department as an important adjunct to his practice. Some emergency departments are making great efforts to develop a "physician sign-out" system which enables the emergency department physicians to handle patients in a way that is acceptable to their primary physician. Under these "sign-out" programs, the private practitioners in a community are asked to indicate to the emergency department physicians exactly what steps should be taken when a person presents himself at the emergency department and identifies himself as a patient of a particular practitioner. Some physicians choose to have the emergency department staff notify them immediately of such situations. On the other extreme, some practitioners are choosing to have the emergency department staff evaluate the complaint, provide whatever short term treatment is indicated, and then notify the patient's primary physician of the case disposition during the next normal work day. Of course, there are options in between.

If the private practitioner can be confident in the ability of the emergency department physicians, and if the practitioner has developed a clear system of patient disposition, then it is very easy for the working relationship between the private practitioner and the emergency department to be a useful and productive one. A

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*Michael T. McEwen received his master's degree in political science from the University of Oklahoma and is presently vice-president for Government Relations with the Oklahoma Hospital Association (OHA) and executive director of the Greater Oklahoma City Hospital Council. Before joining OHA, McEwen worked as a consultant in hospital administration based in Washington, DC.*

clear cut "sign-out" system assures that the private practitioner will have every opportunity to provide the personal care for his patients whenever he feels it is indicated. On the other hand, such a system allows the physician to take advantage of round-the-clock, quality physician care without requiring his own attendance to his patients at every minute of every day. Obviously, the key to this is a solid working relationship between private practitioner and emergency department physician.

#### WHAT TO LOOK FOR IN EDS

The quality of physician staffing in emergency departments will obviously be the first concern of a private practitioner who is attempting to locate an emergency department to which he may refer his patients after hours. Although many emergency departments are still staffed by "moonlighting" residents, there is increasing emphasis in hospitals to require emergency medicine residency graduates or other physicians who are specializing in full-time emergency department work. Those hospitals that are attempting to develop efficient, full-time emergency departments will be making every effort to recruit these full-time emergency physicians. With the existing and future emergency medicine residency programs in operation, it should be increasingly easy for hospitals to acquire qualified emergency physicians.

Another concern that the private practitioner will want to address is the speed and efficiency of service for emergency department patients. The busiest and largest emergency department or trauma center in a given area is not necessarily the best choice. A moderate size department with full-time staffing is probably a better choice. In fact, the existence of a more manageable patient load makes it more likely that treatment will be reasonably expeditious in such an ED. A practitioner looking for after-hours support service by an emergency department may want to locate an ED that is being expanded to full-time status because these "new" services will not be as highly utilized as the bigtime EDs in the area and service will probably be better.

Finally, the key to effective private practitioner-emergency physician relationships is a clearly understood system for the disposition of patients who arrive at the emergency department. There are two ways to

achieve this: the private practitioner may choose to take the initiative to contact an emergency department and establish a "sign-out" policy, or a hospital that is in the process of developing its emergency department may take the lead in contacting community physicians in order to determine their interest in a "sign-out" system. In either case, the practitioner and the emergency department staff should have a clear understanding of how patients are to be handled. This understanding can relieve the private practitioner of a great deal of pressure.

If the current health care management trend continues, it is reasonable to expect an increasing number of hospitals to emphasize the development of their emergency departments. Certainly, it appears to be in the best financial interest of the hospital to do so. If appropriate relationships between the emergency department and the private practitioner are developed, then patients will benefit due to the wider availability of coordinated care. Private physicians can benefit because it will be easier for them to maintain their practices while assuring quality care for their patients.

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Public health officials are following with concern a dramatic increase in reported cases of syphilis during the first six months of 1981. Reports received in late May and early June represent over a 100 percent increase when compared with the same period in 1980. A total of 78 cases have been reported this year, compared with 39 cases at the same time last year. The 1980 totals showed an increase of 30 percent over 1979 data. This upturn represents a major change from the decreasing numbers of cases reported between 1974 and 1979.

This trend in Oklahoma is consistent with an increase observed in other states in the Southwest. Texas and Louisiana have recorded major increases in recent months and there is evidence that the increased cases in Oklahoma are due, in part, to interstate transmission of the disease. Of the 1981 cases, 31 percent have been shown to have an out-of-state source, with the remaining 69 percent of cases confirmed as originating in Oklahoma. Over one-third of the out-of-state sources were located in Texas. Venereal disease epidemiologists have cautioned, however, that this figure may only reflect the concentration of population in Texas and the frequent travel of Oklahomans to population centers in Texas.

Another factor influencing the increase is the more effective diagnostic techniques and intensive case-finding activities which have



## News From The Oklahoma State Department of Health

been introduced into public health programs in Oklahoma in recent years. Increased public information and health education programs also have resulted in cases being brought to treatment earlier. Of the total 1981 cases, 46 percent came to treatment at the initiative of the patient or on referral by a practicing physician. Thirty percent were detected through epidemiologic follow-up of contacts of known cases, and twenty-three percent resulted from routine serologic testing programs. Of the 29 cases found by routine testing, 9 were identified through testing of hospital in-patients and out-patients, 16 through a variety of routine testing programs, and 4 cases through pre-marital testing required by Oklahoma law.

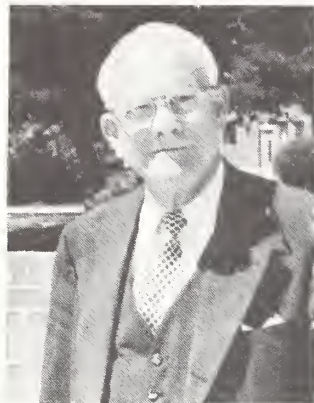
Most new cases were found in Oklahoma and Tulsa counties. The rate in Tulsa County for 1981 climbed 67 percent, with reported cases in Oklahoma County increasing from 20 cases in 1980 to 47 cases in 1981.

The OSDH is reminding physicians of the necessity for continued alertness with regard to venereal diseases, which continue as an important public health concern in Oklahoma. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR MAY, 1981

DISEASE	MAY 1981	MAY 1980	APRIL 1981	TOTAL TO DATE	
				1981	1980
Amebiasis	2	3	—	4	16
Aseptic Meningitis	19	4	2	31	16
Brucellosis	1	1	—	2	3
Encephalitis, Infectious	4	1	4	14	6
Gonorrhea (Use Form ODH-228)	1297	1051	1305	6121	5484
Hepatitis A	29	37	21	122	179
Hepatitis B	27	21	18	96	80
Hepatitis Unspecified	6	34	20	66	120
Malaria	1	1	—	3	8
Measles (Rubeola)	1	364	2	6	711
Meningococcal Infections	4	4	6	26	13
Pertussis	—	1	—	1	9
Rabies (Animal)	34	37	17	96	132
Rocky Mountain Spotted Fever	31	11	5	36	14
Rubella	—	1	—	—	2
Salmonellosis	40	29	24	128	78
Shigellosis	41	10	21	99	72
Syphilis (Use Form ODH 228)	9	11	24	79	42
Tetanus	1	—	—	1	—
Tuberculosis	31	28	22	125	122
Tularemia	4	1	1	6	1
Typhoid Fever	—	—	—	4	2

## Donahue Discusses Psychiatrist Shortage



Hayden H. Donahue, MD

The Oklahoma State Medical Association will appeal to the American Medical Association to conduct a study that will discover the reasons for a nationwide psychiatrist shortage. The OSMA House of Delegates made this decision during the 1981 OSMA Annual Meeting, adopting a resolution that was submitted by Oklahoma psychiatrists.

The resolution also requests that the state's medical schools further study the psychiatrist shortage and take necessary remedial action.

Presently, 14.4 psychiatrists per 100,000 population are available in the nation according to a preliminary report that has been issued by the American Psychiatric Association. In Oklahoma, the ratio is much less. While the report says that only 5.9 psychiatrists per 100,000 population exists in Oklahoma, Hayden Hackney Donahue, MD, director of the Oklahoma Department of Mental Health Education and Training Institute, Norman, OK, says the ratio is even lower with 4.8 psychiatrists per 100,000 population. Doctor Donahue's ratio is based on the number of all practicing psychiatrists in Oklahoma while the statistics in the preliminary report are based on reports that include physicians who perform only occasional psychiatric duties.

According to Dr Donahue, the need for psychiatric care in Oklahoma and across the nation is widespread and increasing. A report conducted by the Alcohol Drug and Mental Health Administration (ADAMHA) further supports this view. It says that more than 32 million people in the United States (15% of the US population) have diagnosable mental illness.

Doctor Donahue added that the demand for psychiatrists probably will increase for at least

two reasons. First, he said current world-wide economic, social and political unrest are beginning to create great pressures for many Americans which could result in their need for psychiatric attention. Also, Dr Donahue said the nation's population is aging and that mental illness will increase as more of the US population becomes elderly — a segment of the US population commonly needing psychiatric treatment.

Concern about the nationwide psychiatrist shortage among OSMA members and other medical professionals throughout the country has been increased because of several reports — some of which have already been cited in this article. Another primary report that has brought much attention to the nationwide psychiatrist shortage has been the Graduate Medical Education National Advisory Committee (GMENAC). GMENAC predicts that by the year 1990, the nation will have a serious psychiatrist shortage unless approximately 8,500 additional general psychiatrists and nearly 5,000 child/adolescent psychiatrists can be trained during the decade.

GMENAC says that in recent years fewer medical students have selected careers in psychiatry for various reasons. These include the fact that psychiatrists incomes are the lowest in the medical profession. The report also suggests that some students could be reacting against excessive claims made earlier by some psychiatrists. Such claims included that various social and political problems such as poverty and crime could be cured through psychiatric care. Another reason fewer medical students are choosing careers in psychiatry according to GMENAC, is that psychiatry is often given a low priority in some medical schools. In addition, the report said some medical instructors in other specialties do not encourage students to practice psychiatry.

Although the GMENAC report offers several reasons for the psychiatrist shortage, Dr Donahue says Oklahoma psychiatrists believe that a more comprehensive understanding of the problem is needed in order to resolve it. Doctor Donahue says psychiatrists are hoping that AMA will conduct a study that would uncover such information as how much mental illness is anticipated in the future, and where mental patients are now being treated and by whom (psychiatrists, psychologists, social workers, nurses or other mental health professionals.)



The decline in the number of students entering careers in psychiatry is only a recent trend according to Dr Donahue. He said that historically, the number of residents in training for psychiatry began to increase rapidly following World War II and continued upward through the early 1970's. He said that ten years ago approximately 1,050 residents were being trained in psychiatry nationally but that by 1979 the number had dropped to only 717.

The recent decline in the number of residents in psychiatry is rather ironic says Dr Donahue, because of the tremendous improvements which have been made in the practice of psychiatry since WW II. Since the late 1940's tremendous advances have been made in the fields of neurophysiology and neurochemistry says Dr Donahue. He explained that such advances have led to a better understanding of mental illness and the development of better and more successful diagnostic and treatment techniques. Psychiatrists now have the potential for dealing with the most devastating of psychiatric problems.

Doctor Donahue added that other developments in the United States in the practice of psychiatry are also being affected because of the psychiatrists shortage. One of those developments involves community mental health centers where patients can be treated without hospitalization. The idea for this concept originated during WW II with the establishment of field clinics where soldiers could be treated for war neuroses. Field clinics helped to reduce over-crowding in war-zone hospitals, while also allowing soldiers to be treated nearer to the stressful situation that activated the illness.

Following the war, Dr Donahue and some of his colleagues pushed for the development of this concept in the US which resulted in a movement to establish community mental health centers. According to Dr Donahue the effort was successful in that it helped to greatly reduce patients in over-crowded US mental hospitals. In addition, the centers enabled patients to stay within their own communities instead of going far away from home for treatment. However, the psychiatrist shortage has already hindered and will continue to stifle the potential effectiveness of these facilities because of there not being enough psychiatrists to adequately staff some of the current centers and none are available to expand the program into other communities needing such centers.

Without a sufficient number of psychiatrists Dr Donahue says the educational progress and research development in psychiatry, the administration of drug therapies to mentally ill patients and other developments in psychiatric care and treatment will be severely restricted. Oklahoma psychiatrists have already initiated steps toward resolving this problem in Oklahoma and across the nation by urging the OSMA to support them actively. Soon, OSMA will appeal to the AMA to take further action toward alleviating the psychiatrist shortage. □

## Women Physicians Face Professional Obstacles

Various reports have indicated that the number of women entering medical schools continues to increase and that, as students, women are doing quite well. But according to an article in a recent *Journal of the American Medical Association*, women physicians are still having to overcome barriers to professional socialization.

Carlotta M. Rinke, MD, author of the AMA article, says women physicians are finding that many of the traditional routes to professional socialization are closed to them. She explained that in general, female doctors are being excluded from the informal, fraternity-like network of male physicians whereby professional contacts and information is exchanged. Consequently, Dr Rinke says, women are less able to operate in the power structure of academic and private medicine which also limits their upward mobility and incomes.

Dr Rinke also said that studies have revealed that as many as two-thirds of the practicing male physicians do not accept women as professional peers. Additionally, she said there is even an ironic prejudice among female doctors that devalues the professional competence of other women physicians. Another obstacle for women doctors is the consequence of falling behind in their ability to compete effectively because of time spent away from their professional careers during childbearing.

Doctor Rinke said such obstacles must be fully recognized and dealt with appropriately in order for the medical profession to tap the full potential of women physicians. □

# DRUGS AND DIRTY TRICKS

There was nothing unusual about the call. I was at home and the pharmacist was well-known to me, as was the patient whose prescription for a restricted drug needed to be refilled. I had approved two refills at the time the prescription was written but, as a precaution had asked that I be notified by phone at the time of each refill. The pharmacist was understanding and cooperative. I approved the refill but made a mental note to look at the patient's chart the following day in order to monitor her use of the medication.

During her next visit, I asked my patient if she had been experiencing an unusual amount of pain or discomfort. I was not too surprised to hear her reply.

"No I haven't. As a matter of fact, I've taken only four or five pain pills since my last visit — about three months ago. I still have almost a full bottle of them." She smiled as she displayed a bottle with about two dozen tablets in it. I removed the cap from the bottle and examined one of the tablets. It bore the appropriate identification.

Fortunately, the lady's son was a patient of mine, and my knowledge of his difficulties prompted my next question.

"Mrs Doe, when you need refills of your prescriptions, does your son John pick them up for you?"

"Oh, yes, John runs all my errands for me. I couldn't make it without his help."

I made an entry in Mrs Doe's chart, on the inside of the front cover, and underlined it in red: *Prescription refills must be verified by patient.*

As I expected, it was not long before I received another call from Mrs Doe's pharmacist. Would I okay the second refill of the prescription for her pain pills? I asked him if Mrs Doe was in the shop.

"No, doctor, we don't see much of her. Her son John is here, waiting for your okay. He said his mother needed more pain medicine and he has her empty bottle."

I asked the pharmacist to wait a few minutes and I would call him back. I then phoned Mrs

Doe and my suspicions were vindicated. She had not told her son to get the prescription for pain pills refilled. She had taken none of them since her recent visit to my office. Her search for the bottle was futile. It had disappeared, mysteriously.

I called the pharmacist and simply refused to approve the requested refill. My decision was not protested. Later, during John's next visit to my office, I asked him to explain his actions.

"Well, doctor, you won't let me have any of those pills anymore, you know. So, I just took mother's bottle, put her pills in an envelope asked for a refill and handed the empty bottle to the pharmacist. When he gave me the new bottle, I took the pills out, put mother's old pills in it and put it back in her medicine cabinet.

"But I'll never do it again, doctor. My mother's awful upset with me." And he hasn't done it again. At least not with one of *my* prescriptions. □

## New Drug Treatment For War Neuroses

A new drug treatment for war neuroses is having success but it also has potential for serious side effects says a report issued by the American Medical Association.

George L. Hogben, MD, psychiatrist, Mount Sinai School of Medicine, City University of New York, and Bronx Veterans Administration Center, reported that traumatic war neuroses can become a chronic, debilitating condition that resists treatment. However, according to the report, some war veterans who have suffered from war neuroses are now experiencing relief from this condition because of a new drug called phenelzine sulfate.

Although the report told of the new drug's success, it also pointed out that according to the *AMA Drug Evaluations, Fourth Edition*, the new drug has a potential for serious side effects. Doctors Hogben also explained that the long-term outcome of traumatic war neuroses treated by the drug, phenelzine sulfate, is uncertain and that patients who had stopped taking the drug against advice showed severe recurrences. □



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## Deaths

RUFUS Q. GOODWIN, MD  
1893-1981

OSMA Past-President, Rufus Q. Goodwin, MD, died in Oklahoma City, June 25. Doctor Goodwin was born near Salem, Arkansas and was graduated from the University of Colorado School of Medicine in 1928. Later that year his private practice of internal medicine was established in Oklahoma City. He was named Chairman of the Department of Medicine at the University of Oklahoma Health Sciences Center. He was President of the OSMA in 1955-56; Alternate Delegate to the American Medical Association; Past-President of the Oklahoma City Academy of Medicine; a member of the American Academy of Physicians, the Oklahoma City Clinical Society and a Life Member of the OSMA.

JOSEPH W. KELSO, MD  
1899-1981

Joseph W. Kelso, MD, Oklahoma City obstetrician and gynecologist for over 46 years, died June 18, 1981. Doctor Kelso was a native of Iowa and was graduated from the University of Iowa College of Medicine in 1925. In addition to his private practice, he was professor and chairman of the Department of Gynecology at the University of Oklahoma Health Sciences Center. He was certified by the American Board of Obstetricians and Gynecologists, a member of the American College and International College of Surgeons, and a Life Member of the OSMA.

ROGER C. GOOD, MD  
1931-1981

Roger C. Good, MD, professor and chairman of the Department of Family Practice at the University of Oklahoma, Tulsa Medical College died June 16, 1981. A native of Wichita, KA, Dr Good was graduated from Temple University School of Medicine in 1958. His professional career included two years with the US Navy, followed by private practice in Philadelphia and Scottsdale, AR before assuming the teaching position he held at the time of his death. He was certified by the American Board of Family Practice and was a Fellow of the American Academy of Family Physicians.

FREDERIC G. DORWART, MD  
1893-1981

A retired Muskogee internist, Frederic G. Dorwart, MD, died in Tulsa, June 16. Doctor Dorwart, a native of Newport, PA, was graduated from the University of Virginia School of Medicine in 1924. His practice was established in Muskogee in 1927. He was a member of the Alpha Omega Alpha, Phi Beta Kappa and a Life Member of the OSMA. □

## IN MEMORIAM

1980

<i>Joseph Fulcher, MD</i>	<i>July 2</i>
<i>Emmett O. Martin, MD</i>	<i>July 15</i>
<i>James R. Colvert, MD</i>	<i>July 22</i>
<i>Thomas J. Hardman, MD</i>	<i>July 24</i>
<i>Kelly M. West, MD</i>	<i>July 28</i>
<i>Tom S. Gafford, MD</i>	<i>August 4</i>
<i>Joseph J. Swan, MD</i>	<i>August 25</i>



<i>Milton J. Serwer, MD</i>	<i>August 28</i>	<i>William R. Morris, MD</i>	<i>January 17</i>
<i>Henry B. Jenkins, MD</i>	<i>August 28</i>	<i>Geoffrey Kelham, MD</i>	<i>January 27</i>
<i>I. F. Stephenson, MD</i>	<i>September 7</i>	<i>Charles G. Stuard, MD</i>	<i>January 30</i>
<i>Emory E. Beechwood, MD</i>	<i>September 9</i>	<i>Fred S. Watson, MD</i>	<i>February 3</i>
<i>Paul B. Champlin, MD</i>	<i>September 17</i>	<i>Robert J. Terrill, MD</i>	<i>February 16</i>
<i>Bernard Brock, MD</i>	<i>September 25</i>	<i>David J. Tomko, MD</i>	<i>March 4</i>
<i>Lee Pullen, MD</i>	<i>October 6</i>	<i>Eugene F. Lester, Jr., MD</i>	<i>March 16</i>
<i>Walter E. Sethney, MD</i>	<i>October 14</i>	<i>J. Samuel Binkley, MD</i>	<i>March 16</i>
<i>Ralph R. Nepveaux, MD</i>	<i>October 19</i>	<i>Gilbert L. Hyroop, MD</i>	<i>April 15</i>
<i>John M. Parrish, MD</i>	<i>November 8</i>	<i>Leo A. Myers, MD</i>	<i>April 19</i>
<i>Franklin D. Sinclair, MD</i>	<i>November 16</i>	<i>J. Holland Howe, MD</i>	<i>April 20</i>
<i>Henry K. Speed, MD</i>	<i>November 17</i>	<i>Harold M. McClure, MD</i>	<i>April 27</i>
<i>Joel T. Woodburn, MD</i>	<i>November 18</i>	<i>Sam W. Hendrix, MD</i>	<i>May 12</i>
<i>Frank R. Viereggs, MD</i>	<i>December 6</i>	<i>Roger C. Good, MD</i>	<i>June 16</i>
<i>Richard G. Stoll, MD</i>	<i>December 7</i>	<i>Frederick G. Dorwart, MD</i>	<i>June 16</i>
<i>Robert C. Bowers, MD</i>	<i>December 31</i>	<i>Joseph W. Kelso, MD</i>	<i>June 18</i>
		<i>Rufus K. Goodwin, MD</i>	<i>June 25</i>

1981

*Athol L. Frew, Jr., DDS, MD*      *January 1*



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	400.00	241.50	277.50	381.50	513.50	418.50*
	300.00	181.50	208.50	286.50	385.50	418.50
	200.00	121.50	139.50	191.50	257.50	279.50
	100.00	61.50	70.50	96.50	129.50	140.50



For full particulars, contact JANE GRIFFITH

**C. L. FRATES & COMPANY, INC.**

Administrator, OSMA Group Insurance Plans  
720 N.W. 50th Street, Oklahoma City, OK 73118 (405) 848-7661



Fred Cormack (left), Chairman of the Physician Manpower Training Commission since it was established in 1975, receives a plaque from C. S. Lewis, Jr., MD, to recognize Mr Cormack's dedication to helping Oklahoma's rural communities find physicians. Doctor Lewis assumed the Chairmanship of the Commission on July 1, 1981. □

### Oktoberfest To Be Held

Oklahoma doctors and their families are invited to participate in the Fourth Annual Oktoberfest Mini-Marathon to be held in conjunction with one of the nation's largest public health fairs. The event will take place October 4 at the University of Nebraska Medical Center, Omaha NE.

The fair will include acres of scientific exhibits and demonstrations says the medical university's associate director of public affairs. It will also feature Richard Simmons, host of the Emmy award-winning show on NBC-TV.

The Oktoberfest Mini-Marathon is open to health science personnel and hospital employees in Nebraska and the surrounding states. The mini-marathon course will cross hilly terrains in south-central Omaha including some of the city's most scenic and historic areas.

Trophies will be awarded to the top male and female runners overall and the fastest male and female physicians, pharmacists, nurses, dentists and other allied health professionals. In addition, T-shirts will be given all entrants.

For more information, or to register (four dollar entry fee), contact Dave Ogden, Office of Public Affairs, University of Nebraska Medical Center, 42nd and Dewey, Omaha, NE 68105. □

## CALENDAR OF EVENTS

### ST ANTHONY HOSPITAL, OKLAHOMA CITY

**August 14, 1981**

"Current Concepts in the Treatment of Common Arthritic Conditions" will be conducted on Friday, August 14, at the Marian Hall Auditorium, St Anthony Hospital, 1000 N. Lee Street, Oklahoma City. There is no registration fee.

### MERCY HEALTH CENTER, OKLAHOMA CITY

**October 30, 1981**

The "Mercy Hospital Fall Symposium for Physicians" will be conducted Friday, October 30 at Mercy Health Center, Oklahoma City. For additional information contact Irwin H. Brown, MD, 600 NW Grand, Oklahoma City, OK 73112, (405) 946-0548.

## SURROUNDING STATES

### COPPER MOUNTAIN, COLORADO

**December 27, 1981 — January 2, 1982**

The "Oklahoma Physicians' Winter Seminar" will be held Sunday through Saturday, December 27, 1981 — January 2, 1982. For further information contact Irwin H. Brown, MD, 600 NW Grand, Oklahoma City, OK, 73112, (405) 946-0548.

### SOUTH PADRE ISLAND, TEXAS

**March 13-20, 1982**

The "Physicians' Spring Seminar," will be held Saturday, March 13 through Saturday, March 20 at the Hilton Hotel on South Padre Island. For additional information contact Irwin Brown, 600 NW Grand, Oklahoma City, OK, 73112, (405) 946-0548.

### WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

**December 10-12**

"Current Concepts In Cancer Therapy" will be presented December 10-12 by the Section of Surgical Oncology, Department of Surgery. The course is sponsored by Washington University in St Louis and the Missouri Chapter of the American Cancer Society. For further information, write ME, Washington University School of Medicine, P.O. 8063, St Louis, MO 63110 or call (314) 454-3873. □



## Miscellaneous Advertisements

**SPORTS MEDICINE PHYSICIAN/FP.** University of Oklahoma Student Health Service seeking Staff/Athletic Physician to assume full responsibility for care of intercollegiate athletes. Modern, fully-equipped health center with 54-bed hospital, new athletic facilities. Excellent consultants and benefits program. Starting salary \$50,000. Contact Carl Whittle, Administrator, Goddard Health Center, 620 Elm, Norman, OK 73069. (405) 325-4611.

**SNOWMASS/VAIL "MEP" SKI SEMINAR** on Management Enrichment For the Health Professional. Ski Snowmass, Colorado, the week of December 19, 1981 or the week of March 20, 1982; or ski Vail, Colorado the week of February 20, 1982. Seminars conducted by noted doctors and management specialists to enrich your life. Trip expenses deductible for doctor and spouse. For information: MEP, An Education Corporation, 906 Copper Avenue, Glenwood Springs, Colorado 81601 or (800) 525-3402.

**COMPHEALTH - LOCUM TENENS -** Physicians covering physicians, nationwide, all specialties. We provide cost-effective quality care. Call us day or night. T. C. Kolff, MD, President CompHealth, 175 W. 200 S., Salt Lake City, UT 84101, (801) 532-1200.

**FOR SALE: EQUIPMENT OF A RETIRED** family physician. Castle autoclave, office size and stand, hyfrecator, two refrigerator window boxes, numerous instruments and supplies. All in good condition and reasonably priced. Call any day between 12:00 - 1:00 o'clock noon (405) 321-1978.

**EMERGENCY MEDICINE** full and part-time opportunities throughout the state in urban and rural hospital settings. Malpractice insurance provided. Send curriculum vitae to Mary Anglin, 1950 E. Santa Fe, Olathe, Kansas 66062 or call (800) 255-6160.

**INTERNAL MEDICINE AND FAMILY PRACTICE** physicians to join the staff of a 20-man multi-specialty group in Shawnee. Contact: Administrator, (405) 273-5801.

**PHYSICIANS AVAILABLE —** Situations requested for practice opportunities in both solo practice and in group and clinics: obstetrician, pediatrician, internist, surgeon and anesthesiologist. Call Dr Robb Montgomery, Director of Services in Physician Placement Assistance, MEDI-SEARCH, (918) 481-0539, 8117 South Harvard, Tulsa, OK 74136.

**PHYSICIANS WANTED —** For immediate openings in many Sunbelt and Midwest practices and clinics. Salaries and benefits excellent for: family practice and anesthesiology. Call Dr Robb Montgomery, Director of Services in Physician Placement Assistance, MEDI-SEARCH, (918) 481-0539, 8117 South Harvard, Tulsa, OK 74136. □

# Proceedings of the 75th Annual Session of the House of Delegates of the Oklahoma State Medical Association

## OPENING SESSION

### *I. CALL TO ORDER:*

The House of Delegates convened its 75th Annual Meeting in the Golden Oaks East Conference Room at Shangri-La, Afton, Oklahoma, on May 7, 1981. The Speaker, George Kamp, MD, Tulsa, called the meeting to order at 10:15 AM. Doctor Kamp noted that 1981 is not only the 75th anniversary of the Oklahoma State Medical Association, but is the one hundredth year of organized medicine in Oklahoma, 1881 being the year the Indian Territory Medical Society was formed in Muskogee.

### *II. INVOCATION:*

The invocation was delivered by J. B. Eskridge, III, MD.

### *III. REPORT OF THE CREDENTIALS COMMITTEE:*

The presence of a quorum was reported by Harlan Thomas, MD, Tulsa, Chairman of the Credentials Committee.

### *IV. REMARKS OF THE SPEAKER:*

Doctor Kamp introduced the head table: Floyd F. Miller, MD, President; James B. Pitts, Jr., MD, President-Elect; Larry L. Long, MD, Vice-Speaker of the House; David Bickham, Executive Director; Elvin M. Amen, MD, Chairman of the Board, and James B. Eskridge, III, MD, Parliamentarian. He also announced the presence of Doctor Robert McCurdy, MD, Colorado, a Delegate to the AMA.

Doctor Kamp acknowledged Mrs Margaret Eskridge, President of the OSMA Auxiliary. Mrs Eskridge presented a brief summary of the events and activities sponsored by the OSMA Auxiliary in 1980-81, such as the Teen Health Conference, the OSMA nurses fund, AMA-ERF, parent assistance programs, senior citizen aids, etc. She encouraged the support and involvement of the OSMA members in their auxiliary, and she also expressed her apprecia-

tion to Dr Floyd F. Miller, President of OSMA, and the OSMA staff for their assistance during her term of office.

Mrs Eskridge then introduced Mrs Janet Chatham, who presented the AMA-ERF checks to the Deans of the three Colleges of Medicine: O.U. College of Medicine, \$18,312.36; Oral Roberts University College of Medicine, \$155.00; OU College of Medicine at Tulsa, \$1,645.00. She then introduced special guest, Mrs Jean Hill from Mississippi, representing the AMA Auxiliary. Mrs Hill commended the OSMA Auxiliary as being "one of the hardest working auxiliaries in the nation." After Mrs Hill's presentation, Mrs Eskridge introduced the new President of the OSMA Auxiliary, Mrs Sherry Strebel, who also encouraged the physicians to support their auxiliary.

Ed L. Calhoon, MD, Beaver, introduced William Y. Rial, MD, Speaker of the AMA House of Delegates and announced Candidate for President-Elect of the AMA. Doctor Rial discussed the PSRO situation and the AMA's position of opposition. Some other points he emphasized were: physicians must be more cost-effective in decision-making; physicians must maintain credibility as an organization by being leaders in medical research; physicians, both individually and organizationally, must maintain credibility through professional relationships with other physicians, and by showing genuine concern and better judgment in medical decisions that impact on the cost of medical care.

*(Item VII on the agenda was incorporated in Item IV.)*

### *VI. APPROVAL OF THE MINUTES OF THE LAST MEETING:*

Doctor Kamp explained that the minutes of last year's Annual Meeting were mailed to each delegate and also published in the July issue of *The Journal*.

*It was moved that the Minutes of the 1980 Annual Meeting of the House of Delegates be approved as published. The motion was seconded and carried.*



#### *V. APPOINTMENT OF THE COMMITTEES OF THE HOUSE:*

Doctor Kamp appointed the following committees to assist in the conduct of the meeting:

##### *PARLIAMENTARIAN*

James B. Eskridge, III, MD, Oklahoma City

##### *CREDENTIALS COMMITTEE*

Harlan Thomas, MD, Tulsa, Chairman

Ralph L. Buller, MD, Hydro

M. Joe Crosthwait, MD, Midwest City

##### *TELLERS*

Orange M. Welborn, MD, Ada

William M. Leebron, MD, Elk City

##### *SERGEANTS-AT-ARMS*

R. L. Winters, MD, Poteau

M. B. Shook, MD, Oklahoma City

##### *REFERENCE COMMITTEE NO. I*

John T. Keown, Jr., MD, Tulsa, Chairman

Ray Cornelison, MD, Midwest City

Robert Dix, MD, Lawton

Richard Harper, MD, Pawhuska

Charles Harvey, MD, Oklahoma City

J. W. McDoniel, MD, Chickasha

Bruce C. Stoesser, MD, Tulsa

Staff—Ed Kelsay

##### *REFERENCE COMMITTEE NO. II*

Carroll Holsted, MD, Kingfisher, Chairman

Ed Dalton, MD, Oklahoma City

Eleanor Deed, MD, Tahlequah

Billy D. Dotter, MD, Okeene

Rayburne W. Goen, Sr., MD, Tulsa

Thurman Shuller, MD, McAlester

Staff—Richard Hess

##### *REFERENCE COMMITTEE NO. III*

Lanny Trotter, MD, Stillwater, Chairman

William O. Coleman, MD, Oklahoma City

Carl Guild, MD, Bartlesville

Claude Knight, MD, Wewoka

J. Randolph Birch, MD, Tulsa

Joe Stafford, MD, Enid

C. P. Taylor, MD, Ada

Staff—Lyle Kelsey

##### *REFERENCE COMMITTEE NO. IV*

John A. Blaschke, MD, Oklahoma City, Chairman

John Alexander, MD, Tulsa

George Brown, MD, McAlester

Harriet Coussons, MD, Oklahoma City

John W. Drake, MD, Oklahoma City

Joe Leonard, MD, Oklahoma City

M. B. Shook, MD, Oklahoma City

Staff — Rick Ernest

#### *VIII. PRESENTATIONS:*

Doctor Kamp presented a plaque to Larry L. Long, MD, who will deliver the award to S. N. Stone, MD, Oklahoma City, for Distinguished Service, along with best wishes for a quick recovery from his illness.

Doctor Kamp recognized Orange Welborn, MD, for presentation. Doctor Welborn gave to Dr Ted Webb, President of the Canadian County Medical Society, a Distinguished Service Award for Malcolm Phelps, MD, El Reno. Doctor Welborn cited the many accomplishments of Doctor Phelps and presented the award to Doctor Webb, who accepted on behalf of Doctor Phelps.

#### *X. OFFICERS' REPORTS:*

##### *A. Report of the President*

Floyd F. Miller, MD, thanked Dr Kent Braden and the Annual Meeting Committee for doing an excellent job. He also thanked his fellow officers, the council chairmen and the OSMA staff for being so supportive.

Doctor Miller then presented his report to the Delegates, and it was referred to Reference Committee No. I. (A copy of the report is attached.)

##### *B. Report of the Chairman of the Board*

Elvin M. Amen, MD, read the Report of the Board of Trustees. He then presented the highlights of the actions taken by the Board at their meeting the day before. Both reports were referred to Reference Committee No. I. (Copies of the reports are attached.)

##### *C. Report of the Secretary-Treasurer*

Armond Start, MD, reported the Association's financial condition to the Delegates. The report was referred to Reference Committee No. I. (A copy of the report is attached.)

#### *XI. PRESENTATION OF BUSINESS TO BE PRESENTED BEFORE THE HOUSE OF DELEGATES:*

Doctor Kamp referred the Delegates to their handbooks, which included some 21 reports and 22 resolutions to be considered by the House and referred to the reference committees.

M. K. Braly, MD, Woodward, announced his plans to resign from the District IV Trustee

position, and asked the House to select a replacement.

Doctor Kamp then stated that he would resign from the office of Speaker of the House, as he was to be nominated for the position of Vice-President. Citing the Bylaws, Doctor Kamp introduced the Vice-Speaker of the House, Larry L. Long, MD, Oklahoma City, who automatically succeeds to the chairmanship in the event of a vacancy.

Doctor Long noted that in Doctor Kamp's memo of April 16 to the Delegates there were three omissions in regard to elections:

Secretary-Treasurer (two-year term)

Incumbent: Armond Start, MD, Oklahoma City (eligible)

District VI, Oklahoma County (three-year term)

Trustee: Thomas N. Lynn, Jr., MD, Oklahoma City (eligible)

Alternate Trustee: Edwin Rice, MD, Oklahoma City (eligible)

Doctor Long declared the House open for nominations for the position of PRESIDENT-ELECT (one-year term of office).

*John A. McIntyre, MD*, Enid, was nominated by Joseph W. Stafford, MD, representing the Garfield County Medical Society. *The nomination was seconded.*

There being no other nominations, nominations were declared closed.

Nominations were declared open for the position of VICE-PRESIDENT (one-year term of office).

*George H. Kamp, MD*, Tulsa, was nominated by Michael J. Haugh, MD, representing Tulsa County Medical Society. *The nomination was seconded.*

There being no other nominations, nominations were declared closed.

Nominations were declared open for the position of SECRETARY-TREASURER (two-year term of office).

*Armond H. Start, MD*, was nominated by M. Joe Crosthwait, MD, representing Oklahoma County Medical Society. *The nomination was seconded.*

There being no other nominations, nominations were declared closed.

Nominations were declared open for the position of VICE-SPEAKER, HOUSE OF DELEGATES (two-year term of office).

*Robert G. Perryman, MD*, Tulsa, was nomi-

nated by Richard A. Liebendorfer, MD, representing Tulsa County Medical Society. *The nomination was seconded.*

There being no other nominations, nominations were declared closed.

Nominations were declared open for the position of DELEGATE TO THE AMA (two-year term of office).

*Ed L. Calhoon, MD*, Beaver, was nominated by William M. Leebron, MD, representing Beckham County Medical Society. *The nomination was seconded.*

There being no other nominations, nominations were declared closed.

Nominations were declared open for TRUSTEE and ALTERNATE TRUSTEE for the following Trustee Districts (three-year term of office):

#### DISTRICT IV.

*Ronald A. Whiteneck, MD*, Woodward, was nominated for the position of Trustee. *The nomination was seconded.*

#### DISTRICT VI.

*Thomas N. Lynn, Jr., MD*, Oklahoma City, was nominated for the position of Trustee. *The nomination was seconded.*

*Edwin L. Rice, MD*, Oklahoma City, was nominated for the position of Alternate Trustee. *The nomination was seconded.*

#### DISTRICT XI.

No nominations were made for either the Trustee or Alternate Trustee position.

#### DISTRICT XII.

*Clarence P. Taylor, Jr., MD*, Ada, was nominated for the position of Trustee. *The nomination was seconded.*

*James V. Miller, MD*, Ardmore, was nominated for the position of Alternate Trustee. *The nomination was seconded.*

#### DISTRICT XIII.

*A. C. Roberson, MD*, Anadarko, was nominated for the position of Trustee. *The nomination was seconded.*

*William A. Matthey, MD*, Lawton, was nominated for the position of Alternate Trustee. *The nomination was seconded.*

#### DISTRICT XIV.

*William Newland, MD*, Altus, was nominated for the position of Trustee. *The nomination was seconded.*

No nomination was made for the position of Alternate Trustee.



Doctor Long announced that the Board of Trustees has approved a slate of nominees to fill positions on the PLICO Board of Directors, listed as follows:

C. S. Lewis, Jr., MD, Tulsa  
Edward K. Norfleet, MD, Tulsa  
Armond Start, MD, Oklahoma City  
C. Alton Brown, MD, Oklahoma City  
John A. McIntyre, MD, Enid

There being no other nominations, nominations were closed.

#### *XIV. NECROLOGY REPORT:*

Doctor Long read the Necrology Report. (A copy of the report is attached and made a part of these minutes.)

#### *XV. ADJOURNMENT:*

The Opening Session of the House of Delegates was adjourned at 12:30 p.m.

Recorded by Toni Leverett

#### *NECROLOGY REPORT 1980-81*

Edward A. Abernethy, MD, Altus  
C. W. Arrendell, MD, Ponca City  
L. V. Baker, Sr., MD, Elk City  
Emory E. Beechwood, MD, Bartlesville  
Bernard Brock, MD, Bartlesville  
Robert C. Bowers, MD, Oklahoma City  
Paul B. Champlin, MD, Enid  
James R. Colvert, MD, Oklahoma City  
Gerald G. Downing, MD, Lawton  
Charles H. Eads, MD, Tulsa  
Athol L. Frew, Jr., DDS, MD, Oklahoma City  
Joseph Fulcher, MD, Tulsa  
Paul C. Gallaher, MD, Shawnee  
Ennis M. Gullatt, MD, Ada  
Thomas J. Hardman, MD, Tulsa  
John E. Highland, MD, Miami  
Henry B. Jenkins, MD, Chandler  
Geoffrey Kelham, MD, Pryor  
Robert C. Lawson, MD, Oklahoma City  
Elton W. LeHew, MD, Paris, Texas  
Robert L. Lembke, MD, Ponca City  
Eugene F. Lester, Jr., MD, Oklahoma City  
Ollie McBride, MD, Ada  
Harold M. McClure, MD, Coral Gables, Florida  
Emmett O. Martin, MD, Cushing  
H. Violet Sturgeon Minton, MD, Enid  
William R. Morris, MD, Oklahoma City  
Leo A. Myers, MD, Shattuck  
Ralph D. Nepveux, MD, Oklahoma City  
John M. Parrish, Jr., MD, Oklahoma City

Lee Pullen, MD, Waurika  
Milton J. Serwer, MD, Oklahoma City  
Walter E. Sethney, MD, Oklahoma City  
Franklin D. Sinclair, MD, Tulsa  
H. K. Speed, MD, Sayre  
I. F. Stephenson, MD, Alva  
Richard Stoll, MD, Chickasha  
Charles G. Stuard, MD, Tulsa  
Joseph J. Swan, MD, Chickasha  
Robert J. Terrill, MD, Enid  
William F. Thomas, Jr., MD, Tulsa  
David J. Tomko, MD, Muskogee  
Frank R. Vieregge, MD, Clinton  
Fred S. Watson, MD, Okmulgee  
Joel T. Woodburn, MD, Muskogee

#### *CLOSING SESSION*

##### *I. CALL TO ORDER:*

The Closing Session of the 75th Annual Meeting of the House of Delegates was called to order by the Speaker, Larry L. Long, MD, at 12:00 noon on May 9, 1981, in the Royal Hawaiian Room at Shangri-La Lodge.

##### *II. INVOCATION:*

The invocation was delivered by Mrs J. B. Eskridge, III.

##### *III. REPORT OF THE CREDENTIALS COMMITTEE:*

Harlan Thomas, MD, Chairman, announced that a quorum of delegates was present.

##### *IV. SPECIAL ANNOUNCEMENTS:*

Doctor Long announced that the position of Vice-Speaker for the House was vacant, and according to the Bylaws, individuals should be nominated by the President and approved by the Board of Trustees. Doctor Long read a letter from President Miller, appointing Robert G. Perryman, MD, to that position. Doctor Amen, Chairman of the Board, noted that he had polled several of the Delegates regarding this appointment, and had received a positive response.

*It was moved that Robert G. Perryman, MD, be appointed by the President to the position of Vice-Speaker of the House. The motion was seconded and unanimously approved.*

Doctor Long also noted there were vacancies in the District II Trustee position and the District XI Trustee and Alternate Trustee positions.

*It was moved that the Board of Trustees appoint individuals to fill the above vacant positions. The motion was seconded and carried.*

## VII. ELECTIONS:

The following officers were elected by acclamation:

*John A. McIntyre, MD*, Enid, was elected to the office of President-Elect.

*George H. Kamp, MD*, Tulsa, was elected to the office of Vice-President.

\**Robert G. Perryman, MD*, Tulsa, was affirmed as Vice-Speaker, House of Delegates.

*Armond H. Start, MD*, Oklahoma City, was re-elected to the office of Secretary-Treasurer.

*Ed L. Calhoon, MD*, Beaver, was re-elected to the office of Delegate to the AMA.

*J. B. Eskridge, III, MD*, Oklahoma City, was re-elected to the office of Alternate Delegate to the AMA.

*Trustee District IV*: Alfalfa, Beaver, Cimarron, Dewey, Ellis, Harper, Major, Texas, Woods and Woodward Counties.

Trustee: *Ronald A. Whiteneck, MD*, Woodward

*Trustee District VI*: Oklahoma County.

Trustee: *Thomas N. Lynn, Jr., MD*, Oklahoma City

Alternate: *Ed E. Rice, MD*, Oklahoma City

*Trustee District XI*: Atoka, Bryan, Choctaw, Coal, McCurtain and Pushmataha Counties.

Trustee: to be appointed

Alternate: to be appointed

*Trustee District XII*: Carter, Garvin, Johnston, Love, Marshall, Murray and Pontotoc Counties.

Trustee: *Clarence P. Taylor, Jr., MD*, Ada

Alternate: *James V. Miller, MD*, Ardmore

*Trustee District XIII*: Caddo, Comanche, Cotton, Tillman, Grady, Jefferson and Stephens Counties.

Trustee: *A. C. Roberson, MD*, Anadarko

Alternate: *William A. Matthey, MD*, Lawton

*Trustee District XIV*: Greer, Harmon, Jackson, Kiowa and Washita Counties.

Trustee: *William Newland, MD*, Altus

The following nominees for the PLICO Board of Directors were re-elected by acclamation:

*C. Alton Brown, MD*, Oklahoma City, President

*Edward K. Norfleet, MD*, Tulsa, Secretary-Treasurer

*Armond H. Start, MD*, Oklahoma City, Chairman, Investment Committee

*C. S. Lewis, Jr., MD*, Tulsa, Chairman, Claims Committee

*John A. McIntyre, MD*, Enid, Director

The Physicians Liability Insurance Company (PLICO) Shareholders Report was delivered by *C. Alton Brown, MD*. Doctor Brown discussed the background and formation of PLICO and gave details on the 1980 operations, a copy of which is included and made a part of these minutes.

*It was moved to approve the report of the Chairman of the PLICO Board of Directors as presented. The motion was seconded and carried.*

\*Appointed by the President

## V. PRESENTATION OF AWARDS:

A. Due to the weather condition, Mr Dean McGee was unable to be present to accept the Outstanding Layman's Award.

B. *Floyd F. Miller, MD*, and Mr John Turner of the A. H. Robins Company presented the A. H. Robins Award for Community Service to *Orange Welborn, MD*, Ada.

C. *M. Joe Crosthwait, MD*, presented Media Recognition Awards to Mr Jim Killackey of the Daily Oklahoman and Mr Cecil Peaden of the Tulsa Tribune. Scholarships of \$500 were awarded to the University of Oklahoma School of Journalism by Mr Killackey and the University of Tulsa School of Journalism by Mr Peaden.

D. *William M. Leebron, MD* and *Mark Johnson, MD*, awarded the Charlotte S. Leebron Award for Scientific Excellence to *Hanna A. Saadah, MD*, for his paper, "Washed Sputum Gram Stain and Culture in Pneumonia: A Practical Tool for the Clinician."

E. Doctor Leebron presented the Sandoz Medical Journalism Award to Doctor Bruce Hurt for his article, "Legionnaires Disease: Rapid Diagnosis by Direct Immunofluorescence of Sputum — Report of Three Sporadic Cases."

## VI. REMARKS OF THE PRESIDENT-ELECT:

Doctor Pitts noted that it was an honor to follow the very capable leadership of Doctor Miller, and pledged that he would do his best, not only to continue the high reputation of OSMA, but also to further it. (A copy of his remarks is attached to and made a part of these minutes.)

## VIII. REFERENCE COMMITTEE REPORTS:

All reports considered by the House of Dele-



gates are attached and made a part of these minutes.

### REPORT OF REFERENCE COMMITTEE NO. III:

Presented by Lanny Trotter, MD, Stillwater.

Reference Committee No. III approved the following items without amendment:

#### ITEM I. Report of the Council on Governmental Activities:

*It was moved that the position paper, "Contemporary Federal Medical and Health Issues," be printed in the Journal. The motion was seconded and carried.*

#### ITEM II. Report of the Council on Medical Services: This report was broken down into specific categories, with the following sections approved as written.

Section B—OSMA Peer Review

Section E—Ambulatory Surgery

#### ITEM III. Report of the Oklahoma Medical Political Action Committee

#### ITEM IV. RESOLUTIONS No. 8—"PSRO and HSA," No. 19—"Repeal of PL 93-641 and PL 96-79," and No. 20—"Elimination of PSRO's."

#### ITEM IVa. Resolution No. 1—"Patient Referrals"

Reference Committee No. III approved the following items as amended:

#### ITEM II. Report of the Council on Medical Services: This report was broken down into specific categories, and amended as follows.

Section A—Health Planning and Resolution No. 2 — "Health Planning": Page 1, line 13, insert the word "further" after "Association" and before "develop."

Section C—Liaison with Organized Nursing: *It was moved that Resolutions No. 3 — "Support of Nurse Education at all Levels," and No. 15 — "Nursing Shortage" be approved, but that Resolution No. 12 — "Development of Three-Year Programs of Nursing Education" not be adopted. The motion was seconded and carried.*

Section D—Physician Placement: *It was moved that an insertion be made after the last sentence, last paragraph of the Physician Manpower Training Commission position statement, "The last statement is endorsed with the understanding that some decrease in the class size may be necessary if the Admissions Board observes a consistent decrease in the quality of applicants." The motion was seconded and carried.*

#### ITEM V. Resolution No. 5 — "Geographic Fee Differentials" and Resolution No. 17 — "Resolution Opposing Fee Discrimination of Similar Services by Different Medical Disciplines": *It was moved that this report be divided, thereby separating Resolutions 5 and 17. The motion was seconded and denied.*

*It was then moved that the Substitute Resolution, included in the Reference Committee's report, be approved. The motion was carried.*

Reference Committee No. III recommended that the following items not be adopted:

#### ITEM VI. Resolution No. 16: "President Reagan's Economic Program"

#### ITEM VII. Report of the Foundation for Peer Review: *After some discussion, it was moved that the report be amended on page 10 by striking lines 3 through 6 and substituting "endorse this private review program to be studied and implemented by the Board of Trustees at its discretion, and that an advisory committee to the Board of Directors of the Foundation for Medical Care be formed, consisting of the past-presidents of OSMA in active practice in the State of Oklahoma."*

*After considerable debate, the House approved the amendment.*

*It was moved that the House adopt the report as amended. After considerable debate, the motion failed.*

*It was moved that the report of Reference Committee No. III, as amended, be accepted as a whole. The motion was seconded and approved.*

### REPORT OF REFERENCE COMMITTEE NO. I

Presented by Bruce C. Stoesser, MD, Tulsa.

Reference Committee No. I approved the following items without amendment:

#### ITEM I. Report and Supplemental Report of the Board of Trustees

#### ITEM IV. Report of the Council on Planning and Development

#### ITEM V. OSMA Auxiliary Report

#### ITEM VII. Report of the President

#### ITEM IX. Resolution No. 4 — "Support for the American Association of Medical Assistants (AAMA)"

Reference Committee No. I approved the following items as amended:

#### ITEM II. Report "A" of the Board of Trustees: Page 2, line 10, replace "\$85,000" with "\$70,500."

#### ITEM III. Report of the Secretary-Treasurer, Auditor's Report, and Report of the Budget

and Audit Committee: Recommendation No. 5 of the Secretary-Treasurer's report was amended to read, "that membership dues be set at \$210 per year."

*After some discussion, it was moved that Recommendation No. 4, page 6, lines 4-6, and Recommendation No. 6, page 6, lines 9-11, be deleted from the report. The motion was seconded and approved.*

ITEM VI. Constitution and Bylaws Committee Report: Page 3, lines, 1, 2, and 3 were deleted.

ITEM VIII. Special Commendation — "Medical Care of Attempted Assassination Victims": The Committee advised modifying the title to read, "Medical Care of Assassination Attempt Victims." The Committee also advised making the same editorial change on line 6 of the commendation.

*It was moved that the Report of Reference Committee No. I be adopted as a whole. The motion was seconded and approved.*

#### REPORT OF REFERENCE COMMITTEE NO. II:

Presented by Carroll Holsted, MD, Kingfisher.

*Reference Committee No. II approved the following items without amendment:*

ITEM I. Report of the Council on Public and Mental Health

ITEM II. Report of the Maternal Mortality Committee

ITEM IV. Report of the Council on Professional and Public Relations

ITEM V. Report of the OSMA-AMA Jail Project

ITEM VI. Report of the OSMA Journal

ITEM VII. Resolution No. 6 — "Shortage of Psychiatrists"

ITEM X. Resolution No. 18 — "Adolescent Pregnancy"

ITEM XI. Resolution No. 21 — "Nuclear, Chemical and Bacteriological Contamination"

ITEM XII. Resolution No. 22 — "Fluoridation of Water Supplies"

*Reference Committee No. II approved the following items as amended:*

ITEM III. Report of the Committee on Perinatal Health: The Reference Committee recommended that the funding request of the Committee on Perinatal Health be re-

jected, as it is no longer appropriate for OSMA to continue funding for this committee which it does not oversee and which is not appointed by the state president.

*Reference Committee No. II recommended that the following items not be adopted:*

ITEM VIII. Resolution No. 9—"Advertising Guidelines"

ITEM IX. Resolution No. 10—"Smoking Ban in Hospitals"

*It was moved that the Report of Reference Committee No. I be adopted as a whole. The motion was seconded and approved.*

#### REPORT OF REFERENCE COMMITTEE NO. IV:

Presented by John Blaschke, MD, Oklahoma City.

*Reference Committee No. IV approved the following items without amendment:*

ITEM I. Report of the Council on Medical Education

ITEM II. Report of the Council on Members Services

ITEM III. Report of the Physician Liability Insurance Company (PLICO)

ITEM IV. Resolution No. 7 — "Equitable Liability Insurance Premiums"

*Reference Committee No. IV approved the following items as amended:*

ITEM V. Resolution No. 11 — "Study of Physician Population": The Reference Committee recommended that Substitute Resolution No. 11 be adopted in lieu of Resolution No. 11.

*It was moved that the report of Reference Committee No. IV be adopted as a whole. The motion was seconded and approved.*

#### IX. OTHER BUSINESS:

Doctor Welborn announced that the OMPAC Board of Directors meeting will be reset for 2:30 PM in the Great Island Room. He also encouraged everyone to become a member of OMPAC.

Doctor Miller commended Kent Braden, MD and the Annual Meeting Committee, the staff and the House Speakers for their fine work in making this Annual Meeting such a success.

Doctor Long reminded the new Officers and Trustees to remain after the meeting for photographs.

Doctor Braden announced that he wished to offer a proposal in regard to payment of insurance on an outpatient basis. Doctor Long asked



unanimous consent that the rules of the House of Delegates be suspended for the purpose of introducing this proposal. There was no objection. *The House voted to amend the proposal, which was approved.* The proposal as amended reads as follows: "The Board of Trustees, at its discretion, study and implement a program to educate the public, the purchasers of insurance and the insurance companies regarding policies to consider some degree of payment for outpatient care and evaluation, and to study other areas to insure continuous quality of care to patients while simultaneously reducing unnecessary costs."

#### X. ADJOURNMENT:

There being no further business to be brought before the House, the meeting adjourned at 2:20 PM.

Recorded by Toni Leverett

### Report of REFERENCE COMMITTEE I

Presented by: Bruce C. Stoesser, MD

Mr Speaker and Members of the House of Delegates, Reference Committee No. I has carefully considered the items which were referred to it and submit the following report:

#### ITEM 1. REPORT AND SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES.

Your Committee considered the Report of the Board of Trustees and the Supplemental Report as a single item. Mr Speaker, your Committee recommends the adoption of the Report and Supplemental Report of the Board of Trustees.

*Mr Speaker, I move for adoption of this portion of the report.*

#### ITEM 2. REPORT "A" OF THE BOARD OF TRUSTEES.

Mr Speaker, Reference Committee No. 1 carefully considered the proposal as set out in Report A of the Board of Trustees regarding the creation of a loan fund to provide financial assistance to impaired members of the OSMA.

It is necessary to make one editorial change in this report: On line 10 of page 2, there is an indication that there is currently \$85,000 set aside for loan and scholarship purposes. The actual figure at this time is \$70,500. Two years ago this House of Delegates directed the Association to cease allocating \$5 of each OSMA member's dues to the loan fund. The \$85,000 figure would reflect \$5 per member for the 1980 dues year.

Your Committee recommends, on page 2, line 18, that a total loan authorization of \$30,000 be authorized.

Your Committee also recommends that the loan fund should be supervised by a committee made up of the OSMA President, President-Elect, Immediate Past-President, and Secretary-Treasurer. Any loan authorization should be approved by at least three of the four members.

Your Committee further recommends that the actual loan plan be developed and then approved by the Board of Trustees.

Mr Speaker, your Committee recommends adoption of Report A as amended.

*Mr Speaker, I move adoption of this portion of the report.*

#### ITEM 3. REPORT OF THE SECRETARY-TREASURER, AUDITOR'S REPORT, AND REPORT OF THE BUDGET AND AUDIT COMMITTEE.

Mr Speaker, your Reference Committee considered these three reports as a single item.

Your Committee extends its appreciation to the Treasurer and to the Executive Committee of the OSMA while acting as the Budget and Audit Committee.

Mr Speaker, your Committee recommends that Recommendations Nos. 1, 2, and 3 found on pages 5 and 6 of the Report of the Secretary-Treasurer be approved as submitted.

Mr Speaker, your Committee also recommends that Recommendation No. 5 be amended to read, "that membership dues be set at \$210 per year."

Your Committee recommends that Recommendation No. 6 of the Report of the Secretary-Treasurer be stricken. It should be noted that the increase in dues . . . amounting to \$30 over the current \$180 per year . . . will assist the Association in offsetting any operating deficit, and a portion of that amount will be utilized to fund the OSMA Annual Meeting. However, your Committee concurs in the recommendation of the Executive Committee and the Board of Trustees that there is no need to dedicate a specific portion of the dues for this purpose.

Mr Speaker, your Committee recommends adoption of the Secretary-Treasurer's Report as amended.

*Mr Speaker, I move the adoption of this portion of the report.*

#### ITEM 4. REPORT OF THE COUNCIL ON PLANNING AND DEVELOPMENT.

Mr Speaker, the Reference Committee would

like to commend the Council on Planning and Development and call to the attention of the House the fine job that the Council has done under the leadership of Dr Bill Leebron.

Your Committee recommends the Report of the Council on Planning and Development be filed for information.

*Mr Speaker, I move adoption of this portion of the report.*

#### ITEM 5. OSMA AUXILIARY REPORT.

Mr Speaker, your Reference Committee would like to commend the Auxiliary and congratulate President Margaret Eskridge and her Officers for an outstanding year.

*Mr Speaker, I move adoption of this portion of the report.*

#### ITEM 6. CONSTITUTION AND BYLAWS COMMITTEE REPORT.

Mr Speaker, your Committee wishes to point out that there is an error in this report. On the top of page 3, all of lines 1, 2 and 3 should be stricken. This was a typographical error in the report. This deletion removes from the OSMA Bylaws the reference to the loan and scholarship corporation. It leaves intact, however, the Financial Aid to Education Committee and the duty of that Committee to supervise any loan and scholarship funds that your Association wishes to create now or in the future.

Mr Speaker, your Committee recommends adoption of the Report of the Constitution and Bylaws Committee as amended.

*Mr Speaker, I move adoption of this portion of the report.*

#### ITEM 7. REPORT OF THE PRESIDENT.

Mr Speaker, your Reference Committee wishes to acknowledge that the office of President of the Oklahoma State Medical Association is not an easy one to fill. Dr Floyd Miller is to be commended for his leadership and dedication.

Mr Speaker, your Committee recommends that the President's Report be filed for information.

*Mr Speaker, I move adoption of this portion of the report.*

#### ITEM 8. MEDICAL CARE OF ATTEMPTED ASSASSINATION VICTIMS.

Mr Speaker, your Committee concurs in the intent of this special resolution, but recommends that its title be changed to "Medical Care of Assassination Attempt Victims." This

same editorial change should be made on line 6.

Mr Speaker, your Committee recommends that this resolution be adopted and that it be distributed directly to the Trauma Team and other physicians involved in the care of the President and other assassination attempt victims at George Washington University Hospital. This is in addition to the resolve in the resolution that it be brought to the attention of the AMA House of Delegates.

*Mr Speaker, I move adoption of this portion of the report.*

#### ITEM 9. RESOLUTION NO. 4 (APPROVED)

Mr Speaker, this resolution calls upon all members of the OSMA to support the American Association of Medical Assistants by allowing and encouraging their Medical Assistants to join AAMA.

*Mr. Speaker, your Committee recommends that this resolution be adopted.*

*Mr Speaker, I move adoption of this portion of this report.*

Mr Speaker, your Reference Committee moves adoption of this report as a whole.

Mr Speaker, as Chairman of this Reference Committee, I would like to thank the Committee members and the staff for their cooperation and their work on this report. John T. Keown, Jr., MD of Tulsa was originally scheduled to be our Chairman. Unfortunately, he had an illness in his family and had to return to Tulsa.

My thanks to Ray Cornelison, MD; Robert Dix, MD; Richard Harper, MD; Charles Harvey, MD; and J. W. McDoniel, MD. Our Committee was assisted by Ed Kelsay from the OSMA.

#### Report of the PRESIDENT (APPROVED)

Mr Speaker, Dr Rial, Dr Pitts, Dr Amen, Dr Long, Dr Eskridge, Fellow Delegates and Guests:

For one hundred years, doctors in Oklahoma have held meetings similar to this one to discuss the problems of our profession, to honor our colleagues and to make pronouncements about the medical care we render to our patients. There is amazing repetition in these sessions. Those of us who have served as President find ourselves repeating the words of our predecessors. Indeed, even when working through the year we recognize many of the same problems faced by past presidents.



This year when I sat down with Jim to discuss the status of our ongoing problems and projects, I couldn't help but remember how similar that conversation was to the one Bill Leebron and I had the year before.

But that's one of the strengths of organized medicine — things change but they don't change. This is a great Association; it has always been great and hopefully will continue that way. Its greatness lies in its membership and no President, I predict, will *not* be so repetitious as to ignore the dedicated volunteer work done by so many of the members who serve in various leadership roles.

Nor could a President leaving this office fail to pay homage to the Auxiliary. Our hard-working wives are one of our greatest assets, seldom recognized until you become involved in their activities.

At meetings like this we pass the symbols of authority to our successors. Others pick up the challenge and the work goes on. But our goals and ideals remain the same — the best medical care possible for our patients and the right to practice in an environment that permits the intellectual and professional freedom that was passed to us by our forebearers.

For years we have defended the profession from reformers who would destroy the way we practice. We have urged our colleagues to remain united — to collectively oppose the outside forces. We've been successful in Oklahoma but, unfortunately, the Federation has not, and there are signs there is further deterioration. There could be a competitive struggle within the Federation structure itself and there are ominous signs of battle between specialty interests. Hopefully, we will not, at this meeting nor at our national meeting, preoccupy ourselves with this unwarranted diversion. We simply cannot afford to be divided by county, by state, nationally, or by specialty. This brief respite we enjoy because of a change in political direction is just that and nothing more, and we need to get about solving the problems in medicine that bring on the attacks — that can only be accomplished by a united profession.

I could report to you on all the individual battles that we've faced this year. Medical education, teaching hospitals, specific training programs, political intrusions and misunderstanding, payment inequities for physicians and patients, public relations problems, peer review, hospital disputes, problem physicians, and outright quackery. But I am convinced it would be no more than a report — significant

only because this year they were mine to face. They will be back as they have been before, because that is the nature of a dynamic society and a responsive profession. And I predict that one hundred years from now the readers of these proceedings will say "Things don't change much, do they?"

Now I would be remiss in not saying that it has been my privilege to serve as your President. Adeline and I have enjoyed it tremendously. This position is respected by its members, by the public and by our government entities. We have been graciously received wherever we went, we have made friends and renewed acquaintances all over the country, and we thank you for that opportunity. As Ed Calhoon would say, "We are beholden."

Respectfully submitted,  
Floyd F. Miller, MD  
President

Report of the  
PRESIDENT-ELECT  
(APPROVED)

*INTRODUCTION:*

It is indeed my pleasure to talk with you here today in what is one of my last official functions as President-Elect of the Oklahoma State Medical Association. This week we celebrated the 75th anniversary of our Association and the 100th anniversary of the formation of the Indian Territorial Medical Association. The almost unparalleled success we have experienced during these few years is an appropriate tribute, I think, to the farsighted and energetic men and women who have served our Association since its formation in 1906. It is a great honor for me to have been selected by you to be the 75th OSMA President. It is just as great an honor to follow the very capable leadership of Floyd Miller. I would appreciate it if you would join me in expressing our appreciation to Floyd for the many long hours he gave while serving as our President.

During the past 12 months I have received copies of every letter, every statement, every news release, every article which has been distributed by our headquarters. I haven't always known what the question was but I am well versed on the answers. In my first President's Page, which I hope is on your desk when you return home, I pledged to try to learn questions to all of my answers. If I can do that, then I will consider it to have been a successful year.



Those of you who know me know that I try not to take things too seriously. Let me assure you, however, that I do not take the responsibility of this position lightly. The Oklahoma State Medical Association is recognized throughout the Federation as one of the strongest, most effective associations in the country. I promise to do my best not only to continue that reputation but also to further it. With your help I'm confident that this can be accomplished.

In the few minutes that we have here today I would like to very briefly describe some of the answers I've learned during the past 12 months. Perhaps next year when I present the address of the President I will be able to discuss the questions as well.

OSMA's answer to the professional liability insurance crisis is probably both the most recent and the most familiar. We appear to have made the right decision when this House of Delegates voted two years ago to form the Physicians Liability Insurance Company. Today, we the physicians who are insured under this program make the policy decisions, we set the rates, and we determine who will be insured and who will not. This is certainly preferable to being at the mercy of someone else.

But PLICO is not the only program that we can be proud of. Our Council on Professional and Public Relations has the nation's most successful public service program, having now sold spots to eight other state societies with numerous others being interested. We also have one of the nation's best medical journals . . . a tribute to the Board of Editors and Editor-in-Chief, Mark Johnson. This Council certainly has some innovative answers to public relations.

The Council on Governmental Activities has shown similar innovation making Oklahoma the first state society to retain a Washington-based lobbyist. This program has enhanced our federal relations immeasurably and again is a program which we can take pride in.

Two years ago a very difficult problem was referred to the Council on Public and Mental Health. This House instructed the Council to investigate the problem of mobile drug abusers and to find innovative solutions. The problem was difficult and the solution was not easily found. But today as a result of combined efforts of the Council, our *Journal* Editor and staff, a new series of articles entitled "Drugs and Dirty

Tricks" is scheduled to begin publication. The articles are written by Oklahoma doctors and describe ways in which drug abusers have sought to obtain controlled drugs under false pretenses. I look for the program to be highly successful . . . as a matter of fact, other state journals have already indicated that they will follow our lead.

The one thing that has probably impressed me the most during the past year is the variety of issues our Association is involved in and the leadership which we provide. We survey hospitals in order to accredit them to conduct continuing medical education courses. We have worked with a variety of organizations in seeking answers to the nursing shortage, alternatives to health planning, and answers to PSRO's. We have lobbied the state legislature on any number of issues. We have provided direction on environmental questions. If it affects or potentially affects the health of the citizens of this state, you can be assured that the Oklahoma State Medical Association is involved in it one way or another.

I am proud of this Association. And I am proud to have been elected President. Thank you very much.

Respectfully submitted,  
James B. Pitts, Jr., MD  
President-Elect

Report of the  
BOARD OF TRUSTEES  
(APPROVED)

**INTRODUCTION:**

The Board of Trustees of the OSMA has completed three of its quarterly meetings for organizational year 1980-81. The fourth, or Annual Meeting of the Board is being held in conjunction with this Annual Meeting of the Association. The proceedings of the Annual Board Meeting are covered in the supplemental report of the Board of Trustees.

The Board met on August 16 and November 16, 1980 and February 8, 1981. A quorum was certified for each meeting, with an average of 13 Trustees, 8 Officers and 7 AMA Delegates or Alternates in attendance.

**PLICO:**

Again, during this past year, one of the most important activities of the Board of Trustees was the constant monitoring of the activities of



the Physicians Liability Insurance Company, PLICO.

During its August 16 meeting, the Board recommended to the PLICO Board that the OSMA President be made an ex-officio member of the PLICO Board. In addition, the Trustees resolved a technical difficulty with the PLICO assessment and OSMA life members.

All physicians insured under PLICO were being assessed an amount to build up the company's capital assets. The OSMA By-laws specify, however, that life members of the Association cannot be assessed. The Board of Trustees voted to charge Association life members a "policy fee" in lieu of an assessment, but at the same rate and for the same period of time as the assessment for regular members.

During the November 16 meeting of the Board they had heard appeals on the part of four physicians from previous actions of the Association Underwriting Committee. This is the Committee that recommends insuring Association members by PLICO. The four physicians were appealing previous recommendations by the Underwriting Committee that their coverage either be terminated or severely restricted. The Association's Board of Trustees upheld the Committee's recommendation in each instance.

One million dollars of the assessment being held by OSMA was transferred to PLICO by action of the February 8 Trustees meeting. The purpose of the transfer was to build up PLICO's capital surplus.

The February Board also approved the publication of a separate booklet containing reprints of selected Oklahoma laws that specifically affect the practice of medicine. The publication of the booklet will be a joint endeavor by OSMA and PLICO. Its publication in a separate booklet required Board of Trustees action because of a previously adopted House of Delegates recommendation that the laws be printed in the annual OSMA Directory. It was pointed out that such an activity would nearly double the size of the directory, and that a separate booklet would probably be more useful to individual members.

#### *INSURANCE PROGRAMS:*

During the past year, the Board of Trustees considered several different pieces of business dealing with Association insurance programs.

The Association's sponsorship of the OSMA qualified plan corporation, a pension plan for physicians, was withdrawn by the Board on

August 16. However, steps were taken to protect the physicians participating in the original plan.

#### *STUDENT MEMBERSHIP:*

The Board adopted guides and policies regarding student members in OSMA and directed that they should be disseminated to the various County Medical Societies. The policies adopted are as follows:

1. The County Medical Society shall be responsible for approval of membership for student members.
2. County Medical Societies shall set the County Society student dues.
3. County Medical Societies shall establish mechanisms of subsidization of students' dues, if desired.
4. OSMA shall not participate in obtaining funds for subsidization of student members.
5. County Medical Societies shall establish whether student members may vote at the county level.
6. Students may not vote at the OSMA level, as in the House of Delegates or on Referenda.
7. Student representatives to the House of Delegates and to the AMA must be County Society members and selected by fellow County Society student members.

#### *AMERICAN MEDICAL ASSOCIATION:*

The Board had previously adopted a policy to automatically invite the AMA Delegates and Alternate Delegates to each Board meeting. In addition, an invitation is extended to them to attend OSMA Executive Committee meetings and the meetings of the Planning and Development Council.

The AMA Delegates and Alternates were well represented at all Board meetings throughout the year. In addition, they brought several reports to the Board's attention regarding the activities of the AMA House of Delegates and, of course, took back to the AMA the feelings of the Association members on many subjects.

#### *BYLAWS:*

During the year, the Board made two specific recommendations for changes of the current OSMA Bylaws.

First, it was recommended that the Association's State Legislative Committee be elevated to Council status, and the Chairman



of the Council on Governmental Activities be an ex-officio member of the Council on State Legislation, and vice versa.

Second, the Board recommended the abolishment of the Council on Scientific Assembly. The Council organized for the purpose of producing and conducting continuing medical education programs and to serve as a focal point for input to medical specialty societies, but has never functioned as originally conceived, principally due to the representation on the Council. It has been suggested that consideration be given to the formation of an organization of specialty society presidents.

In both instances the Board directed the Association's Constitution and Bylaws Committee to draw up appropriate bylaws recommendations for consideration by the House of Delegates at this Annual Meeting.

#### *1982 ANNUAL MEETING:*

The actual date and location of the 1982 Annual Meeting have not been established at this time. However, the Board of Trustees, during its November meeting, adopted a motion to recommend to this House of Delegates that the Association's dues be adjusted to include an amount sufficient to fund the Annual Meeting of the OSMA on an ongoing basis. The Treasurer of the OSMA was instructed to develop a recommendation regarding actual dollar amounts.

The Board of Trustees authorized the Annual Meeting Committee to eliminate exhibits in the 1981 session because of the location of the facility and the limited space available for exhibit purposes. It was agreed that the 1981 loss would be funded out of OSMA surplus, but that if in future years it was decided to conduct meetings without exhibit income, that some consistent financing mechanism for the Annual Meeting should be proposed to the House of Delegates, which the Secretary-Treasurer has included in his report.

#### *LEADERSHIP CONFERENCE:*

A proposal was presented to the August Trustees meeting for the Association to sponsor a one and one-half day Leadership Conference to be patterned after the AMA's Annual Leadership Conference. Total projected cost of the meeting, including all promotion, printing and meals during the Conference would be approximately \$8,000.00. The Executive Com-

mittee of the Association stipulated that the cost of sponsoring such a program should be offset in some way through a fee charged to the participants. The Trustees authorized the Leadership Conference to be conducted February 28 - March 1 in Oklahoma City.

By the time of the February 8 meeting of the Board of Trustees, it was becoming obvious that the Leadership Conference was in trouble. During that meeting, the Board voted to cancel the conference if fewer than 50 participants had not registered by February 15. President Miller was given authority to cancel the meeting at that time.

Final registration for the meeting was 28 persons, and the Conference was cancelled.

#### *TEENAGE CONFERENCE:*

The Association, at the request of the Oklahoma State Department of Health, agreed to co-sponsor a statewide conference for teenagers. The Association's endorsement was needed in order for the Auxiliary to be able to work on the project. One thousand dollars was contributed toward the cost of the conference. It was later reported to the Board by both the Department of Health and the Auxiliary that the conference was very successful.

#### *OKLAHOMA MEMORIAL HOSPITAL:*

In one of its more controversial decisions, the Board went on public record through a letter to the Governor and several legislative leaders to support the construction of Oklahoma Memorial Hospital and recommend that it be completed as soon as possible, and that the construction and completion be done under the direction of the Department of Human Services.

Reports that appeared in the media of this support appeared to be saying that the Medical Association has come out in favor of the activities of the Department of Human Services, and that the Department be endorsed to operate the hospital. The actual recommendation by the Trustees, however, was that the hospital construction be completed as quickly as possible, and that the most expeditious way would be for this to be completed under the direction of the Department.

#### *HEALTH CARE PERSONNEL:*

During the year, the Board spoke to two shortage areas in health care personnel. One was in the area of psychiatry and the other in nursing.

The November Board heard a report of an



acute shortage of practicing psychiatrists in Oklahoma. It was reported that the shortage was so critical that psychologists were being hired by state agencies to provide mental health services that heretofore had been delivered by psychiatrists. This shortage problem was referred to the Association's Council on Public and Mental Health for further study.

The February Board heard a report on the nursing shortage. It was reported that even though salaries had been raised and special schedules established for RN's, there was still a critical shortage in some hospitals.

The Board voted to support training programs that would increase the number of nurses, and it referred the shortage problem to the Council on Medical Services with instructions that a report and recommendations be submitted to this House of Delegates.

#### *CAPITAL EXPENDITURES:*

Because of a combination of normal wear and tear, deterioration and the addition of new staff members, it became necessary for the Board of Trustees to authorize the expenditure of funds for refurbishing the OSMA building and upgrading the OFPR building.

The Board approved the funds necessary for painting the outside of the OSMA building, resurfacing the parking lot and doing some other general maintenance work. New office equipment was also needed to replace some outdated equipment. The OFPR required the installation or purchase of partitions to maximize the use of their space. An initial expenditure of \$20,000 for the listed repairs and replacements was approved, with the recommendation that a long-range plan be submitted to the Board of Trustees at a later date.

#### *"CHIP":*

"CHIP" is a concept devised by the Louisiana Medical Society, designed to provide an alternative method of health care financing. It is an individual savings plan established by an employee and/or employer to pay for medical expenses. Expenses over a deductible are withdrawn from a savings account. A portion of the money paid in is used to purchase catastrophic coverage that goes into effect at some predetermined level. But the money paid into the savings account belongs to the employee, and he may withdraw it at some time agreed upon, ie, termination if he so desires.

The "CHIP" idea was endorsed by the Trustees as an alternative method of health care financing worth being considered by the Association.

#### *NATIONAL ISSUES:*

The February 8 Board adopted a formal position paper on national health issues. The concepts outlined in the draft paper are as follows:

- that the federal government make no further investments in health insurance. We further recommend that the federal government explore avenues of divestiture;
- that bold and new departures toward the reduction of existing federal regulations be instituted without delay;
- that health care for direct federal beneficiaries be shifted to the private sector;
- continued federal attempts to establish open and fair competition;
- that federal tax and reimbursement mechanisms be restructured in order to provide for cost sharing by patients at the time of delivery of medical services, either through indemnity or point of service co-payment plan; and
- that prospective changes in the financing or organization of medical care be the subject of detailed and well documented experimentation at the level of the individual state or states prior to its uniform adoption as national federal policy.

#### *LIFE MEMBERSHIP AWARDS:*

The following physicians have been awarded life membership in the Association through application from component societies and with the approval of the Board of Trustees:

AUGUST 19, 1980

William M. Hood, MD, Muldrow

Robert J. Terrill, MD, Enid

NOVEMBER 16, 1980

Robert M. Herlihy, MD, Enid

Bruce R. Hinson, MD, Enid

Mark D. Holcomb, MD, Enid

Kirk T. Mosley, MD, Enid

J. Wendall Mercer, MD, Enid

FEBRUARY 8, 1981

Herbert M. Anderson, MD, Oklahoma City

Henry A. Brocksmith, MD, Tulsa

James B. Darrough, MD, Vinita

J. William Finch, MD, Hobart

William H. Garnier, MD, Stillwater

W. Carl Lindstrom, MD, Tulsa



Loyd L. Long, MD, Ardmore  
John F. Simon, MD, Alva  
Tom R. Turner, MD, Tulsa

Respectfully submitted,  
Elvin M. Amen, MD, Chairman  
OSMA Board of Trustees

Supplemental Report of the  
BOARD OF TRUSTEES  
(APPROVED)

Mr. Speaker and Members of the House:

The Board of Trustees met at its Annual Meeting yesterday, and this report is supplemental to the Annual Report of the Board of Trustees. It is available for distribution to the Delegates and will be referred to Reference Committee No. I, to be considered along with the Annual Report of the Board, which was included in the Delegates Handbook. The Board meeting convened at 4:10 p.m. with the introduction of special guests and an announcement that this was the 75th Annual Meeting of OSMA.

The Board reappointed Robert G. Tompkins, MD, Tulsa, as an Editor of the *OSMA Journal*.

The Board approved the Minutes of its February 3 meeting as published. The Board also, as required by the bylaws held elections for Chairman and Vice-Chairman of the Board with J. B. Eskridge, III, MD, presiding. The Board reelected Elvin Amen, MD, Bartlesville, as Chairman, and Ray V. McIntyre, MD, Kingfisher, as Vice-Chairman.

Floyd F. Miller, MD, in his final President's Report to the Board, discussed the organization of the OSMA's delegation to the AMA. He reported to the Board that M. Joe Crosthwait, MD, had been elected Chairman of the Delegation and J. B. Eskridge, III, MD, Vice-Chairman. Doctor Miller explained that the organization of the Delegates would provide for improved continuity for our AMA activities and that the action had been taken with the complete approval of Doctor Pitts, the incoming President.

Armond Start, MD, Secretary-Treasurer, gave a detailed report of OSMA's financial condition explaining that the Association could anticipate a deficit in 1981. He told the Board that it was the opinion of the Executive Committee that the dues increase of \$30 per year

was necessary to sustain the Association's operations. The Board accepted the report and agreed to recommend to the House of Delegates that a \$30 dues increase be approved for 1982.

The Board also agreed to recommend an expenditure of \$50,000 for improvements on the OSMA Headquarters Building, and a potential loan of \$20,000 to the Oklahoma Foundation for Peer Review, assuming the House of Delegates approves the Foundation's proposal to do private review.

The Board received the report on the nominees to be presented to the House of Delegates for the PLICO Board of Directors and agreed to present to the House the following nominees: C. Alton Brown, MD; Armond Start, MD; C. S. Lewis, MD; John A. McIntyre, MD; and Edward Norfleet, MD.

The Board agreed to advance to the House of Delegates the OFPR's proposal for a private review program.

The Board voted to advance Resolutions 3, 12 and 15 to the House of Delegates with the recommendation that they be approved. Late Resolutions 17, 18 and 22 were approved for consideration by the House of Delegates.

Life memberships for the following were approved: E. J. Allgood, MD, Altus; Harry E. Barnes, MD, Muskogee; Maurice P. Capehart, MD, Tulsa; James D. Martin, MD, Cushing; Cole D. Pittman, MD, Bartlesville; Paul Kernenek, MD, Holdenville; Jeanne Ranier, MD, Oklahoma City; Dale Groom, MD, Oklahoma City; James Curtis Spalding, MD, Oklahoma City; Royal E. Stuart, MD, Tulsa; David Shapiro, MD, Tulsa; Emil E. Palik, MD, Tulsa; Robert A. Northrup, MD, Tulsa; Doyle L. Patton, MD, Coalgate; Weldon K. Haynie, MD, Durant.

Dues Exempt memberships were approved for the following: Donald A. Reid, MD, Tulsa; James R. Riggall, MD, Oklahoma City; Jack L. Riggall, MD, Oklahoma City; James K. Boyd, MD, Tulsa.

Annual Meeting sites for OSMA were selected as follows: 1982-Oklahoma City, 1983-Tulsa, 1984-Shangri-La, (tentative).

At 5:20 p.m. the Board adjourned and went into session as Judicial Council and heard appeals as follows: Robert H. Millwee, III, MD, appeal denied; Robert L. Krebsbach, MD, appeal denied; and Doyle L. Patton, MD, appeal denied.

The Board reconvened as the Board of Trustees and referred a report on nurse recruitment



and retention to the Council on Medical Services. The Board approved a motion to affirm existing Board policy regarding the financing of medical student attendance at AMA meetings.

The Board accepted and approved a recommendation that the Executive Director not be required to present Underwriting Committee decisions to the Board or disseminate Board decisions to the appellant physician and requested that a procedure be established and recommended to the Board of Trustees by the PLICO Board of Directors.

The Board heard a brief OMPAC report from Orange M. Welborn, MD.

Report "A" of the  
BOARD OF TRUSTEES  
(APPROVED AS AMENDED)

*INTRODUCTION:*

The Tulsa County Medical Society initiated a proposal through its Physician Care Committee to provide financial assistance to impaired members of the Association who need specialized medical assistance. Occasionally, there arises a situation where the impaired doctor admits that there is a need for treatment and even agrees to participate in a treatment program but cannot, for financial reasons, leave his practice. Tulsa County Society officials investigated various ways to fund such a program so that it could be available on a statewide basis. Traditional insurance mechanisms were looked at, as were voluntary contribution and even a modest dues increase. After discussing the proposition during meetings of the Executive Committee and the Council on Planning and Development, President Floyd Miller suggested that the Board of Trustees instruct the Secretary-Treasurer to study the feasibility of utilizing existing OSMA surplus funds as a pilot project in an effort to determine the demand for such assistance. After studying similar programs in other states and discussing the problem with AMA staff members, it became apparent that the demand for such funds was almost unpredictable.

In the mid-fifties OSMA created a Loan and Scholarship fund to assist needy medical students. Five dollars of each OSMA member's dues is allocated to the loan fund. In recent years, with the number of programs initiated

by the federal and state government, there has been little demand for the funds. There is currently \$85,000 set aside for loan and scholarship purposes that is unobligated.

According to OSMA's Legal Counsel, these monies could be used for an "Impaired Physicians Fund" (see correspondence) and the By-law changes to accomplish such an objective are attached.

The Board recommends adoption of the amendments and requests permission from the House to implement such a program within parameters to be set by the Board with a total loan authorization of no more than \$30,000.

(It is the recommendation of the House of Delegates that the loan fund be supervised by a committee made up of the OSMA President, President-elect, Immediate Past-President and Secretary-Treasurer and that any loan be approved by at least three members. The House further recommends that the actual loan plan be approved by the Board of Trustees.)

Report of the  
SECRETARY-TREASURER  
(APPROVED AS AMENDED)

*INTRODUCTION:*

For the last several years the Association has ended each fiscal year with a modest surplus of income over expense. For fiscal year 1980, it was reported to the House that we would break even or perhaps have a small deficit, and it was anticipated that we would spend from our surplus in 1981. The Auditors' Report indicates that we ended 1980 with \$4,666.00 in surplus income over expense. If we maintain existing programs for the rest of 1981, and make normal adjustments for inflation, it is obvious that expense will exceed income. The Association has an uncommitted surplus of approximately \$375,000.

*GENERAL:*

Special Note: When reviewing the Auditors' Report, please note that the 1979 comparative figures are based on only 9 months of operations due to a change in the fiscal year. To make them comparative, the numbers must be annualized and even then would not necessarily be reflective of actual expense.

*MEMBERSHIP:*

The Association's principal source of income is membership dues (66% of total income).

Membership in OSMA has continued to increase moderately for the past 10 years, resulting in increased income which has kept OSMA dues slightly below the median when compared to the nation as a whole. Membership in the Association as of December 31, 1980 was:

	Projected 1981	Actual 1980
Regular Members	2,750	2,673
Affiliate Members	15	13
Life Members	260	256
Junior Members	400	341
Hardship	12	7
TOTAL	3,437	3,280
Pending	230	227
	3,667	3,507

#### INCOME:

In addition to dues, OSMA receives income from investments (certificates of deposit), lease income, commissions from AMA, *Journal* advertising, membership direct advertising and sales, and from contracts for services such as underwriting and risk management and data sales. The 1981 projected income and its sources are:

	Actual 1980	Proposed 1981
Membership Dues	\$426,944	\$454,750
Interest & Commissions	54,780	50,000
Lease Income	26,740	28,000
Membership Directory	3,136	25,000
Risk Management Contract	80,654	77,500
Jail Project	24,094	20,000
Journal Dues & Subscriptions	70,616	70,000
Miscellaneous	2,008	3,500
Annual Meeting Income	40,232	5,000
TOTAL	\$729,204	\$733,750

#### EXPENSES:

Association expenses vary with programs adopted by the House of Delegates and are subject to the same inflationary pressures as other businesses. The Report of the Council on Planning and Development, which integrates Council reports and budget requests, indicates no new significant expenditures or programs for 1981. However, general administration expenses, salaries, related benefits and travel will all increase. If the House approves all the programs submitted, expenses of the Association will exceed income by \$46,500. In addition, maintenance, capital expenditures and an

investment in OFPR's new private review subsidiary will further reduce OSMA's surplus. Projected expenditures for 1981 are as follows:

	Actual 1980	Proposed 1981
General Administration	\$347,645	\$405,000
Council Expense	50,458	61,250
In-State Travel	7,139	8,500
Out-of-State Travel	63,060	65,000
Newsletters	1,907	2,500
Membership Directory	1,650	15,000
Risk Management Contract	53,090	60,000
Journal Expense	106,881	107,000
Annual Meeting	76,612	26,000
Jail Project	1,851	15,000
Depreciation	14,245	15,000
TOTAL	\$724,538	\$780,250

Based on the above proposal, the Association will spend more than \$46,000 of its surplus to fund the 1981 program. It should be pointed out that the Council budgets are recorded as submitted and historically do not spend as much as is proposed, partially due to our accounting system. Expenditures are not always charged to the appropriate Council. For example, the Council on Members Services spent none of its budget last year, but the Association funded a number of student and resident activities, which were charged to the AMA Conventions account.

An itemized breakdown of the General Membership account is on page 15 of the Auditors' Report. It should be remembered that the proposed budget for 1980 made no adjustments for salaries and related benefits, whereas the actual expenses reflect those adjustments, and the 1981 proposed budget includes a salary adjustment factor.

As mentioned earlier in the report, it has been recommended by the Board of Trustees that funds be allocated for needed improvements to the OSMA Headquarters Building, which includes normal maintenance and, if the House approves the OFPR report, that funds be set aside to assist them in starting the private review program. It is assumed that these monies will be repaid to OSMA at some future date.

In addition, it was the decision of the Board of Trustees that the cost of the Annual Meeting be financed with contributions and surplus rather than exhibit sales. The Lodge at Shangri-La has no exhibit hall nor an appropriate place for exhibits. The Annual Meeting Committee solicited contributions from drug companies and medical supply houses, but received very poor response, and it is apparent



that we will sustain a significant loss on the Annual Meeting. Estimates are about \$21,500, which are reflected in the 1981 Budget, but final figures will not be available until after the meeting, and may exceed estimates, since this is the first time OSMA has held a meeting in this facility. The Board also passed a resolution recommending to the House of Delegates that OSMA dues be adjusted to provide for the permanent financing of the Annual Meeting.

#### RECOMMENDATIONS:

1. That the proposed budget for 1981 be approved;
2. That the Board be authorized to spend from surplus if necessary to fund the 1981 budget;
3. That \$50,000 from surplus be approved for maintenance and improvement of the OSMA Headquarters;
4. That membership dues for 1982 be set at \$210 per year.

Armond H. Start, MD  
Secretary-Treasurer

MOAK, HUNSAKER, ROUSE, THOMAS &  
CO.

CERTIFIED PUBLIC ACCOUNTANTS  
MEMBERS AMERICAN INSTITUTE OF  
CERTIFIED PUBLIC ACCOUNTANTS  
OKLAHOMA CITY, OKLAHOMA 73102

(APPROVED)

House of Delegates  
Oklahoma State Medical Association  
Oklahoma City, Oklahoma

We have examined the balance sheet of the Oklahoma State Medical Association as of December 31, 1980 and 1979 and the related statements of revenue and expenses, changes in fund balance and changes in financial position for the year ended December 31, 1980 and the nine months ended December 31, 1979. Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

We did not examine the financial statements of Physicians Liability Insurance Company, a subsidiary, which statements reflect total assets and net income (loss) constituting 31 percent and 4 percent in 1980 and 58 percent and 21 percent in 1979, respectively, of the totals. These statements were examined by other auditors whose report thereon has been furnished to us, and our opinion expressed herein, insofar as it relates to the amounts included for Physicians Liability Insurance Company, is based solely upon the report of the other auditors.

The Oklahoma State Medical Association does not provide for depreciation on buildings as is required by generally accepted accounting principles.

In our opinion, based upon our examination and the report of other auditors, except as noted in the preceding paragraph, the financial statements referred to above present fairly the financial position of the Oklahoma State Medical Association as of December 31, 1980 and 1979 and the results of its operations and the changes in its financial position for the year ended December 31, 1980 and the nine months ended December 31, 1979, in conformity with generally accepted accounting principles applied on a consistent basis.

Moak, Hunsaker, Rouse, Thomas & Co.

Oklahoma City, Oklahoma  
March 16, 1981

#### OKLAHOMA STATE MEDICAL ASSOCIATION BALANCE SHEET DECEMBER 31, 1980 AND 1979

ASSETS	1980	1979
<b>CURRENT ASSETS</b>		
Cash	\$ 11,622	23,625
Savings accounts and certificates of deposit	910,259	342,584
Accounts receivable	1,018,970	1,187,985
Accrued interest receivable	7,152	3,424
Prepaid expenses	6,946	8,778
Total Current Assets	1,953,949	1,566,396
<b>PROPERTY AND EQUIPMENT</b> —Partially pledged to secure long-term debt— Note 4—		
Land	7,808	7,808
Building	379,515	371,955
Pavement	2,451	2,451
Furniture, fixtures and equipment	107,165	96,194
Equipment under capital lease—Note 2	25,650	25,650
	522,589	504,058
Less: Accumulated depreciation and amortization	66,797	52,552
	455,792	451,506

## news

### INVESTMENT IN

SUBSIDIARY—Note 3

1,113,450	1,162,338
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### OTHER ASSETS

Deposits	1,983	1,746
Organization expense—Subsidiary	95,760	119,700
	97,743	121,446
<b>TOTAL</b>	<b>\$3,620,934</b>	<b>3,301,686</b>

Certain 1979 amounts have been reclassified to conform to 1980 presentation. The accompanying accountants' report and notes are an integral part of this statement.

### LIABILITIES AND FUND BALANCE

1980 1979

#### CURRENT LIABILITIES

Current portion of long-term liabilities—		
Note 4	\$ 6,820	6,070
Current obligation under capital lease—		
Note 2	4,410	3,875
Accounts payable—Note 5	127,961	86,359
Loans and scholarships payable	70,565	55,907
Accrued liabilities—		
Interest	—	19,160
Payroll taxes	368	396
Retirement expense	11,500	12,750
Deferred income—Note 6	1,662,465	1,581,248
<b>Total Current Liabilities</b>	<b>1,884,089</b>	<b>1,765,765</b>

#### LONG-TERM LIABILITIES—Note 4

Notes payable—Secured by partial pledge of property and equipment	155,761	1,075,173
Less: Current portion included above	6,820	6,070
	148,941	1,069,103

#### LONG-TERM OBLIGATION UNDER

##### CAPITAL LEASE—Note 2

Lease payable—Secured by pledge of equipment	21,775	25,650
Less: Current portion included above	4,410	3,875
	17,365	21,775

#### SUBSEQUENT EVENT—Note 11

##### FUND BALANCE

Appropriated for public education—		
Note 7	35,619	33,244
Appropriated for building maintenance—		
Note 8	30,217	30,217
Unappropriated	1,504,703	381,582
	1,570,539	445,043
<b>TOTAL</b>	<b>\$3,620,934</b>	<b>3,301,686</b>

### OKLAHOMA STATE MEDICAL ASSOCIATION STATEMENT OF REVENUE AND EXPENSES FOR THE YEAR ENDED DECEMBER 31, 1980 AND THE NINE MONTHS ENDED DECEMBER 31, 1979

	1980	1979
<b>FROM OPERATIONS</b>		
Revenue—		
Membership dues	\$426,944	331,458
Interest and commissions	54,780	16,462
Building lease income	26,740	16,650
Membership directory	3,136	3,605
Underwriting and risk management surcharge income	3,154	44,289
Miscellaneous	2,008	4,298
	516,762	416,762
Expenses—		
General membership	323,235	233,157
Council	28,215	23,520
In-state travel	7,139	5,900

#### Out-of-state travel and AMA

convention expense	63,060	44,663
OSMA newsletter	1,907	1,263
Membership directory	1,650	2,536
Underwriting contract	—	1,193
Depreciation and amortization of leased equipment	14,245	7,973
	439,451	320,205
	77,311	96,557

### JOURNAL

#### Revenue—

Subscriptions allocated from dues	30,000	18,000
Advertising and sales	40,616	25,790
	70,616	43,790
Expenses	106,881	71,359
	(36,265)	(27,569)

1980	1979
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### ANNUAL MEETING

#### Revenue—

Booth sales	\$ 26,075	29,800
Ticket sales	9,871	8,629
Contributions	4,286	2,000
	40,232	40,429
Expenses	76,612	64,323
	(36,380)	(23,894)

Excess of Revenue Over Expenses Before Other Items	4,666	45,094
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### OTHER REVENUE (EXPENSES)

Special assessment	1,191,283	—
Income (Loss) from investment in subsidiary	(48,888)	12,338
Amortization of organization expense—Subsidiary	(23,940)	—
	1,118,455	12,338
Net Excess of Revenue Over Expenses	\$1,123,121	57,432

Certain 1979 amounts have been reclassified to conform to 1980 presentation. The accompanying accountants' report and notes are an integral part of this statement.

### OKLAHOMA STATE MEDICAL ASSOCIATION STATEMENT OF CHANGES IN FUND BALANCE FOR THE YEAR ENDED DECEMBER 31, 1980 AND THE NINE MONTHS ENDED DECEMBER 31, 1979

	1980	1979
<b>APPROPRIATED FOR PUBLIC EDUCATION—</b>		
Note 7		
Beginning of period	\$ 33,244	33,244
Contribution from the Central Oklahoma Council of Medical Staffs	2,375	—
End of period	35,619	33,244

#### APPROPRIATED FOR BUILDING MAINTENANCE—

Note 8		
Beginning of period	30,217	15,859
Appropriation for period	—	14,358
End of period	30,217	30,217

#### UNAPPROPRIATED

Beginning of period	381,582	338,508
Excess of revenue over expenses	1,123,121	57,432
	1,504,703	395,940
Appropriated for building maintenance	—	14,358
End of period	1,504,703	381,582
<b>TOTAL</b>	<b>\$1,570,539</b>	<b>445,043</b>

The accompanying accountants' report and notes are an integral part of this statement.



OKLAHOMA STATE MEDICAL ASSOCIATION  
STATEMENT OF CHANGES IN FINANCIAL POSITION  
FOR THE YEAR ENDED DECEMBER 31, 1980 AND  
THE NINE MONTHS ENDED DECEMBER 31, 1979

	1980	1979
<b>WORKING CAPITAL PROVIDED</b>		
From operations—		
Excess of revenue over expenses	\$1,123,121	57,432
Expenses (Income) not requiring the outlay of working capital during the current period—		
Equity in loss (income) of subsidiary	48,888	(12,338)
Depreciation and amortization	38,185	7,973
Total From Operations	1,210,194	53,067
Proceeds from long-term liabilities	—	1,300,000
Increase in long-term obligation under capital lease	—	25,650
Increase in appropriated for public education	2,375	—
Total Working Capital Provided	1,212,569	1,378,717

<b>WORKING CAPITAL USED</b>		
Purchase of property and equipment	18,531	124,137
Investment in subsidiary	—	1,150,000
Increase in other assets	237	121,446
Increase in current portion of long-term liabilities	750	2,399
Increase in current obligation under capital lease	535	3,875
Payments on long-term liabilities	919,412	246,470
Payments on long-term obligation under capital lease	3,875	—
Total Working Capital Used	943,340	1,648,327
Increase (Decrease) in Working Capital	269,229	(269,610)

<b>CHANGES IN WORKING CAPITAL</b>		
Current assets—		
Cash	(12,003)	13,443
Savings accounts and certificates of deposit	567,675	(143,261)
Accounts receivable	(170,015)	1,144,557
Accrued interest receivable	3,728	1,330
Prepaid expenses	(1,832)	(471)
Increase in Current Assets	387,553	1,015,598
Current liabilities—		
Current portion of long-term liabilities	750	2,399
Current obligation under capital lease	535	3,875
Accounts payable	41,602	(18,844)
Loans and scholarships payable	14,658	2,623
Accrued liabilities	(20,438)	30,707
Deferred income	81,217	1,264,448
Increase in Current Liabilities	118,324	1,285,208
Increase (Decrease) in Working Capital	\$269,229	(269,610)

Certain 1979 amounts have been reclassified to conform to 1980 presentation. The accompanying accountants' report and notes are an integral part of this statement.

OKLAHOMA STATE MEDICAL ASSOCIATION  
NOTES TO FINANCIAL STATEMENTS  
DECEMBER 31, 1980 AND 1979

(1) Significant Accounting Policies—

The following is a summary of certain significant accounting policies followed in the preparation of these financial statements:

Property and equipment—

Property and equipment, including the capitalized lease, is recorded at cost. Depreciation of the property, except building, is computed using the straight-line method. Depreciation is not provided on the building and is computed over the following estimated useful lives:

Furniture, fixtures and equipment

Years  
3-10

Capital lease—

The capital lease is accounted for under the Statement of Financial Accounting Standards No. 13, Accounting for Leases. Under this method of accounting for capital leases, the asset is amortized on a straight-line basis over the useful life of the asset (10 years) and the obligation, including interest thereon, is liquidated over the life of the lease.

Deferred income—

All income is prorated over the calendar years to which it applies.

Investment in subsidiary—

Investment in the related entity is accounted for by the equity method. Under this method the Association's equity in the net earnings or losses of the subsidiary is included currently in the Association's statement of revenue and expenses. Dividends received from the subsidiary are reflected as a reduction of the investment. The carrying value of the investment approximates the underlying equity of the subsidiary.

Loan acquisition costs—

Loan acquisition costs are amortized on a straight-line basis over the life of the loan. For financial statement purposes, the costs are netted with the related note payable.

Organization expense—Subsidiary—

Organization expense is amortized on a straight-line basis over a five-year period.

Organization—

The Oklahoma State Medical Association was organized as a nonprofit organization and, as such, is exempt from income taxes under Section 501(c)(6) of the Internal Revenue Code.

(2) Long-Term Obligation Under Capital Lease—

The following is a schedule by years of future minimum payments under the capital lease together with the present value of net minimum lease payments as of December 31, 1980:

Fiscal year ended December 31—	
1981	\$ 6,984
1982	6,984
1983	6,984
1984	6,984
Total Minimum Lease Payments	27,936
Less: Amount representing interest	6,161
Present Value of Net Minimum Lease Payments	21,775
Less: Current portion of obligation under capital lease	4,410
Long-Term Obligation Under Capital Lease	\$17,365

Amortization of leased property under the capital lease was \$2,565 for the year ended December 31, 1980. Interest expense on the outstanding obligation under the capital lease was \$3,109 for the year ended December 31, 1980. Since the leased property was not in use as of December 31, 1979, no amortization of leased property or interest expense was recorded in the nine months ended December 31, 1979.

(3) Investment in Subsidiary—

On May 3, 1979 the House of Delegates of the Oklahoma State Medical Association passed a resolution empowering the members of the Board of Trustees of the Association to organize and form an insurance company wholly owned by the Association for the purpose of writing professional liability and related lines of insurance on Oklahoma physicians. On October 17, 1979 the Physicians Liability Insurance Company was formed and capitalized by the Association in the sum of \$150,000 in capital stock and \$1,000,000 of paid-in capital. On February 8, 1981 the Board of Trustees of the Association approved a payment of an additional \$1,000,000 for paid-in capital to the Physicians Liability Insurance Company (see

Note 11). Insurance policies written by the company were effective as of January 1, 1980.

(4) Long-Term Liabilities—

The following is a summary of the current and long-term portion of notes payable:

	1980		1979	
	Current Portion	Long-Term Portion	Current Portion	Long-Term Portion
Installment note payable to a company — Secured by equipment — Payable in 60 monthly payments of \$489 including interest at 11 percent, commencing January, 1979	\$4,447	10,496	3,985	14,943
Installment note payable to a company — Secured by real estate — Payable in 180 monthly payments of \$1,448 and one payment of \$69,548 at the end of note including interest at 10 percent, commencing November, 1979	2,812	144,045	2,524	147,079
Note payable to a bank— Secured by special assessments — Single payment note— Interest rate of 12 percent— Due date April 1, 1981	—	—	—	913,120
	7,259	154,541	6,509	1,075,142
Less: Loan acquisition costs on above real estate note	439	5,600	439	6,039
Total	\$6,820	148,941	6,070	1,069,103

(5) Accounts Payable—

The following is a summary of the accounts payable:

	1980	1979
Trade	\$ 31,056	15,109
Dues	5,350	21,598
Leebron Memorial Fund	5,130	1,260
Building construction costs	—	1,500
Medical education endowment	84,680	45,455
Physicians Liability Insurance Company (Subsidiary)	1,745	1,437
Total	\$127,961	86,359

(6) Deferred Income—

The following is a summary of deferred income:

	1980	1979
Dues	\$ 491,400	411,977
Annual meeting	451	5,750
Special assessment—1980	—	1,163,521
Special assessment—1981	1,170,614	—
	\$1,662,465	1,581,248

On May 3, 1979 the House of Delegates passed a resolution establishing a special assessment. The proceeds of such assessment will be used exclusively for payments of costs of forming and funding the Physicians Liability Insurance Company, a wholly-owned subsidiary of the Association. The assessment will not exceed \$2,000 per insured physician who is a member of the Association. The assessment is due on an installment basis over the next three years beginning January 1, 1980.

The deferred special assessment income as of December 31, 1980 and 1979 is comprised of receipts of \$492,979 and \$395,463, respectively, plus unpaid special assessments billed in advance of \$677,635 and \$768,058, respectively.

(7) Appropriated for Public Education—

During the fiscal year ended May 31, 1976, the Board of Trustees authorized the amounts collected through special assessments to be transferred to the portion of the fund balance appropriated for public education. The appropriation will be used to inform the general public of governmental, legislative and bureaucratic regulations over the medical profession and the public.

(8) Appropriated for Building Maintenance—

For years prior to 1980, the Board of Trustees had adopted the procedure of appropriating 25 percent of the net operating revenue for each period toward building maintenance. Effective for the year ended December 31, 1980, the Board of Trustees rescinded the 25 percent appropriation.

(9) Professional Liability Stabilization—

The Professional Liability Stabilization Program was established during the year ended May 31, 1976 by assessing the doctors a 15 percent surcharge on their basic professional liability policies. The Insurance Company of North America provided the basic \$100,000/\$300,000 policy. This money is under the control of two trustees, one appointed by the Association and one appointed by the insurer. As of December 31, 1980 the balance on deposit was \$301,261, which is not included in the financial statements. The money will not be utilized unless all established reserves of the insurer are first exhausted through the payment of claims.

(10) Professional Liability Excess Coverage—

During the fiscal year ended March 31, 1977, an insurance plan was formed with Hartford and Lloyd's of London to provide excess professional liability coverage. The excess liability policy will cover losses in excess of \$100,000 and less than \$1,000,000 that exceed \$2.25 million per year. In accordance with the plan, a specified portion of the insurance premiums were deposited in a bank in the name of the Oklahoma State Medical Association. The balance of the account on December 31, 1980 was \$895,638, which is not included in the financial statements. The funds will be used if the insurers' reserves are exhausted through payment of claims.

(11) Subsequent Event—

On February 8, 1981 the Board of Trustees of the Association approved a payment of \$1,000,000 for paid-in capital to the Physicians Liability Insurance Company, a wholly owned subsidiary of the Association (see Note 3).

(12) Related Party Transactions—

For the year ended December 31, 1980, the Association had an agreement with the Physicians Liability Insurance Company, a wholly owned subsidiary, to provide loss prevention services for the insurance company. The Association was reimbursed \$77,500 for their expenses of the project.

(13) Pension Plan—

The Association has a defined benefit pension plan which covers employees who are twenty-four and one-half years of age or older and have at least six months of service. The plan has a fiscal year of June 1 to May 31. The total pension expense for 1980 and 1979 is \$19,707 and \$13,324, respectively. The amount of accrued pension expense for the year is funded by the Association in annual contributions to the pension plan. The actuarial present value of the accumulated benefits to participants of the plan and the net assets available for those benefits as of the beginning of the plan year 1979-1980 is as follows:

	1980
Actuarial present value of the accumulated plan benefits—	
Vested	\$ 4,049
Nonvested	21,838
Total	\$25,887
Net assets available for benefits	\$51,844

In determining the actuarial present value of the accumulated plan benefits, an assumed weighted average rate of 6 percent was used.



## SUPPLEMENTAL MATERIAL

House of Delegates  
Oklahoma State Medical Association  
Oklahoma City, Oklahoma

Our examination of the financial statements included in the preceding section of this report was directed to an expression of our opinion on those statements taken as a whole. The supplemental material presented in the following section of this report has been subjected to certain audit procedures applied in connection with our examination of the financial statements. This information, while not considered necessary for the fair presentation of the financial position, results of operations and changes in financial position of the Association, is in our opinion fairly stated in all material respects when considered in relation to the financial statements taken as a whole.

Moak, Hunsaker, Rouse, Thomas & Co.  
Oklahoma City, Oklahoma  
March 16, 1981

### OKLAHOMA STATE MEDICAL ASSOCIATION SCHEDULES OF EXPENSES FOR THE YEAR ENDED DECEMBER 31, 1980 AND THE NINE MONTHS ENDED DECEMBER 31, 1979

	1980	1979
<b>GENERAL MEMBERSHIP EXPENSES</b>		
Salaries	\$ 216,223	131,740
Payroll taxes	14,813	8,752
Pension costs	19,707	13,324
Office supplies	14,243	14,753
Legal and professional	14,565	5,965
Postage and shipping	13,866	6,643
Telephone and utilities	21,887	14,098
Dues and subscriptions	4,389	1,510
Repairs and maintenance	5,081	3,585
Insurance	26,431	16,833
Equipment rental	10,741	6,440
Staff and officers' expense	11,662	2,810
Awards	1,638	1,675
Other general expense	3,239	3,870
Data processing	5,445	1,476
Services	3,216	2,838
Interest	40,068	24,332
Loss prevention project	15,090	—
Total Before Allocation of Overhead	442,304	260,644
Expense reimbursement from subsidiary	(77,500)	—
Overhead allocated to Journal	(16,482)	(6,389)
Overhead allocated to annual meeting	(25,087)	(21,098)
Total	323,235	233,157
<b>COUNCIL EXPENSES</b>		
Governmental activities	4,833	14,390
Professional and public relations	14,980	3,343
Planning and development	5,557	1,955
Medical education	796	1,070
Medical services	1,578	(596)
Member services	(13)	3,308
Public and mental health	484	50
Total	\$ 28,215	23,520

	1980	1979
<b>JOURNAL EXPENSES</b>		
Salaries	\$ 36,000	27,000
Printing	35,515	26,636
Advertising	13,855	7,576
Artwork	1,760	1,210
Proofreading	490	462
Supplies	252	104
Other	2,527	1,982
Total Before Allocation of Overhead	90,399	64,970
Overhead allocated from general membership expenses	16,482	6,389
Total	106,881	71,359
<b>ANNUAL MEETING EXPENSES</b>		
Exhibit	7,785	2,970
Planning	1,190	908
Printing	5,759	4,299
Speakers	7,930	6,300
Entertainment	9,694	12,219
Luncheons and receptions	7,607	3,534
Signs and security	924	1,963
Audiovisual equipment	921	922
Hotel	—	2,792
Ladies' activities	3,433	3,035
Miscellaneous	6,282	4,283
Total Before Allocation of Overhead	51,525	43,225
Overhead allocated from general membership expenses	25,087	21,098
Total	\$ 76,612	64,323

### Report of the COUNCIL ON PLANNING AND DEVELOPMENT (APPROVED)

#### INTRODUCTION:

The Council on Planning and Development met on two occasions since the last Delegates meeting — once in the fall in a two-day session and once in the spring to prepare this Annual Report to the House.

At the fall meeting the Council adopted overall goals and priorities that had been established by the House of Delegates at the May meeting. They were:

1. Improve the image of the Association as the primary advocate of the ethical physician;
2. Establish the Association, in the eyes of the public, as the principal authority on all medical issues;
3. Maintain and improve the Association's federal and state legislative program;
4. Continue to improve the Association's effectiveness in AMA policy making;
5. Improve the Association's interoffice administrative procedures;
6. Increase OMPAC/AMPAC membership;
7. Resolve the Peer Review problem;
8. Influence the Health Planning process;
9. Study the potential impact of IPA's/HMO's on Oklahoma patients.

The goals and priorities were compared to the proposed work programs of the Councils to assure they were in keeping with directives as determined by the House of Delegates.

All of the Councils have been active during the year, and, as is obvious from the reports, have represented the Association membership well in their deliberations.

#### *ANNUAL PROGRAM OF ACTIVITIES:*

The proposed programs are contained in the Annual Reports of the Councils. They generally continue programs already established and do not require a significant change in staffing or funding.

#### *COUNCIL ON GOVERNMENTAL ACTIVITIES:*

The Council asks approval to continue its existing Washington program, and has suggested that the status of the Committee on State Legislation be elevated to Council status. State legislative activities have become increasingly important to the Association, and the Chairman should be on the Council on Planning and Development, which would be accomplished if the change is authorized.

The Council requests a budget authority of \$18,500.00, which will finance both state and federal activities. (The contract with John Montgomery, our Washington representative, is included in the Association's general administrative budget.)

This Council would like to call the delegates' special attention to the Council's position paper, *Contemporary Federal Medical and Health Issues*. It is a well prepared document which is receiving very favorable response from medical leaders.

#### *COUNCIL ON PUBLIC AND MENTAL HEALTH:*

The Council's programs include health education, environmental quality, mobile drug abusers, liaison with the Pharmaceutical Association, maternal mortality studies, perinatal studies and mental health services. The Council proposes a health assessment program during this 1981 Annual Meeting. The Council asks for a budget approval of \$2,250.00.

#### *COUNCIL ON MEMBERS SERVICES:*

The Council performs underwriting activities for the Association, reviews and approves Association sponsored insurance programs, and other member benefit programs, and is responsible for liaison with residents and students and reports for the physicians and Grievance Committee.

The Council's budget request is \$5,000.00.

#### *COUNCIL ON MEDICAL SERVICES:*

Health planning, Peer Review, nursing liaison, physician placement, relations with third party payors and review of changes in methods of delivering medical services are all the responsibility of this Council. The Council has had an especially busy year with the confusion over Peer Review, the change in AMA's policy as it relates to health planning and PSRO. The Council proposes to continue its activities and asks for a budget of \$2,500.00.

#### *COUNCIL ON PROFESSIONAL AND PUBLIC RELATIONS:*

The Council has done an excellent job in conducting programs approved last year. The Council produced public service announcements, which have been well received by other state medical societies, and the recently inaugurated radio spots have given the Association considerable public exposure. Their plans are to continue existing successful programs and request a budget authority of \$25,000.00.

#### *COUNCIL ON MEDICAL EDUCATION:*

The Council proposes to continue its survey activities, requests support of the Physician Manpower Training Commission and its report on physician manpower, plans to increase and improve liaison with the state's medical schools and asks that a study be conducted to determine appropriate uses of the proposed CME endowment fund. The Council's budget request is \$3,000.00.

#### *COUNCIL ON PLANNING AND DEVELOPMENT:*

This Council is responsible for reviewing other Council activities to make certain they conform to the House of Delegates directives. The Council meets twice per year in two-day sessions to review the reports and long-range activities. The Association pays for the expenses of the meetings. Budget request is \$5,000.00.



### Recapitulation

Council on Governmental Activities	\$18,500
Council on Public & Mental Health	2,250
Council on Members Services	5,000
Council on Medical Services	2,500
Council on Professional & Public Relations	25,000
Council on Medical Education	3,000
Council on Planning & Development	5,000
TOTAL	\$61,250

### RECOMMENDATION:

It is recommended that the Annual Plan of Activities as detailed within this report be approved.

Respectfully submitted,  
 William M. Leebron, MD, Chairman  
 Floyd F. Miller, MD  
 James B. Pitts, MD  
 George H. Kamp, MD  
 Elvin M. Amen, MD  
 Armond H. Start, MD  
 John A. McIntyre, MD  
 Larry L. Long, MD  
 C. Alton Brown, MD  
 Richard A. Liebendorfer, MD  
 M. Joe Crosthwait, MD  
 Perry A. Lambird, MD  
 Victor L. Robards, Jr., MD  
 Chester L. Bynum, MD  
 William L. Hughes, MD  
 Hal B. Vorse, MD  
 Ray V. McIntyre, MD  
 James B. Eskridge, III, MD  
 Ed L. Calhoon, MD  
 Harlan Thomas, MD  
 Orange M. Welborn, MD

### OKLAHOMA STATE MEDICAL ASSOCIATION AUXILIARY REPORT TO STATE MEETING (APPROVED)

Thank you for all the ways you in the county societies and the state association have helped the Auxiliaries this year. We function only with your blessing and we hope we do this well.

Do you know what your Auxiliary is doing??

One of the main health projects, which most of the Auxiliaries were involved in this year, was the Teen Health Conference held in Stillwater November 16-18. There were 129 young people who participated and many of our members were chaperones and attended the meetings for adults. Many of your societies supported this project with money and some

were speakers. The youth who participated returned to their communities to share their information and enthusiasm with their peers through workshops, meetings, and closed TV programs. The Auxilians were helpful in seeing that this was done.

Other projects of the Auxiliary have included raising money for the Oklahoma Auxiliary Nurses Loan Fund, AMA-ERF for money to supply additional speakers and/or research at the local level, for the Parent's Assistance Program, Oklahoma Blood Institute, gifts for Senior Citizens, Health Career Days. Many of these same people have given untold hours in volunteer time at hospitals, nursing homes, working with school nurses, helping with vision screening, assisting at Health Fairs and on and on.

I hope you have shared in their activities and caught some of their enthusiasm in helping with community health projects. If you haven't I ask you to consider asking your Auxiliary to name a member to your board or at least to a committee. They are well-informed, intelligent people who are anxious to present a positive image of medicine in your community. Incidentally, we now have 4 male members in Auxiliary.

I want to thank Floyd Miller, MD for his support and counsel, the OSMA staff for their expertise, advice and patience, the state Auxiliary for giving me this wonderful year, and Jim, my husband, for his counsel, encouragement—and for eating out so often.

Thank you,

Margaret Eskridge  
 President

### Special Report of the CONSTITUTION AND BYLAWS COMMITTEE (APPROVED AS AMENDED)

The OSMA Committee on Constitution and Bylaws has reviewed carefully the various proposals to amend the Bylaws. In addition, the Committee proposes three "housecleaning" amendments to correct inadequacies or errors that appear in the current Bylaws.

### A. INITIATION OF RESOLUTIONS:

It is recommended that Section 10.01 of Chapter IV (page 14) be amended to read as follows: "10.01 INITIATION. A memorial or

resolution may be initiated by a component society, *Association committee or council*, or by a member of the Association, and must be signed by either the Secretary of the component society, *the Chairman of the committee or council*, or by the member, respectively."

For many years, committees and councils of the Association have been initiating resolutions for consideration by the House of Delegates. The above amendment clarifies their authority to do so.

#### B. VOUCHER DISBURSEMENTS BY TREASURER:

It is recommended that Section 4.00 of Chapter XII (p. 21) be amended as follows: "*Section 4.00 SECRETARY-TREASURER.* The Secretary-Treasurer shall be a member of the House of Delegates, the Board of Trustees, and the Council on Planning and Development. He shall keep the Minutes of all meetings of the House of Delegates. As Treasurer, he shall give bond in the amount specified by the Board of Trustees. He shall be custodian of all funds of the Association and shall make all authorized disbursements. He shall render an annual account of all receipts, expenditures, funds invested and on hand to the Board of Trustees and House of Delegates, and shall open his books and records to such auditor inspection as may be ordered by the Board of Trustees or House of Delegates. He shall invest reserve funds on orders of the Board of Trustees. When authorized by the Board of Trustees, he may borrow money in the name of the Association and may pledge property of the Association as security for the repayment thereof."

The elimination of the voucher being signed by the Executive Director and countersigned by the President was accomplished several years ago at the recommendation of the Association's audit firm. Under the present system, both the Executive Director and the Treasurer visually inspect all bills that are presented for payments before a disbursement check is signed.

#### C. LOAN AND SCHOLARSHIP FUND, INC:

Section 5.01 of Chapter X (page 28) is amended as follows: "5.01 DUTIES. The Committee shall be responsible for management of the Association's loan and scholarship funds

for students of educational institutions approved by the Board of Trustees.

The Association's loan and scholarship fund was eliminated approximately two years ago, when the Association's House of Delegates transferred all of its funds back to the Association's general funds. This removal of the loan and scholarship corporation from mention in the OSMA Bylaws will allow the Association's general legal counsel to complete its disbanding. By leaving the Financial Aid to Education Committee intact, however, the Association will have a vehicle to conduct any future loan and scholarship programs.

#### D. SCIENTIFIC ASSEMBLY COUNCIL:

At the request of the OSMA Board of Trustees, the Constitution and Bylaws Committee has prepared appropriate amendments that will eliminate the Council on Scientific Assembly. This may be done by the House of Delegates adopting the following amendment to the Bylaws: "Section 9.00 and Subsections 9.01 and 9.02 of Chapter IX (page 25), of the OSMA Bylaws, are hereby repealed."

#### E. STATE LEGISLATIVE COMMITTEE:

At the request of the OSMA Board of Trustees, the Constitution and Bylaws Committee has prepared the following amendments to the Bylaws that will elevate the State Legislative Committee to a Council status, and assure that the Chairmen of the Council on Governmental Activities and the Council on State Legislation will serve on both councils.

A new Section 9.00 of Chapter IX (page 25) may be adopted to read as follows:

#### "Section 9.00 COUNCIL ON STATE LEGISLATION.

9.01 DUTIES. The Council shall review proposed state legislation and regulations of concern to the medical profession and/or the health care industry, and shall initiate activities or undertake appropriate responses on matters of priority interest. It shall establish and maintain relations with the State Legislature and with State government entities having statutory or regulatory jurisdiction affecting the medical profession, the delivery of health care, or the public health. In cooperation with other Association councils and committees, it shall communicate with the medical profession, shall develop policy recommendations for consideration by the Board of Trust-



ees, and shall prepare testimony and otherwise conduct the legislative program of the Association. The activities of the Council shall be governed by the Association's Annual Program of Activities as determined and interpreted by the Board of Trustees."

"9.02 APPOINTMENT. The Chairman of the Association's Council on Governmental Activities shall be an ex-officio member of this Council."

Section 6.01 of Chapter IX (page 24) specifies the duties of the Council on Governmental Activities. This section is amended to read as follows:

"6.01 DUTIES. The Council shall review federal legislation and regulations of concern to the medical profession or the health care industry, and shall initiate activities or undertake appropriate responses on matters of priority interest. It shall also establish and maintain relations with federal government entities having statutory or regulatory jurisdiction affecting the medical profession, the delivery of health care, or the public health. In cooperation with other Association councils and committees, it shall communicate with the medical profession, shall develop policy recommendations for consideration by the Board of Trustees, and shall prepare testimony and otherwise conduct the federal legislative program of the Association. The activities of the Council shall be governed by the Association's Annual Program of Activities as defined and interpreted by the Board of Trustees."

In addition, a new Section 6.02 is adopted to read as follows:

"6.02 APPOINTMENT. The Chairman of the Association's Council on State Legislation shall be an ex-officio member of this Council."

#### RECOMMENDATIONS:

As provided in the OSMA Bylaws, your Committee recommends that the amendments listed in Sections A, B and C above, be adopted by the House of Delegates.

The amendments listed in Sections D and E are recommended by the Association Board of Trustees. Your Committee concurs and recommends their adoption.

Stanley R. McCampbell, MD, Chairman

Jarold D. Kethley, MD  
C. S. Lewis, Jr., MD

Arnold G. Nelson, MD  
James B. Eskridge, III, MD  
David Browning, Jr., MD

#### SPECIAL COMMENDATION (APPROVED AS AMENDED)

INTRODUCED BY: Council on Planning and Development

SUBJECT: Medical Care of Assassination Attempt Victims

REFERRED TO: Reference Committee I

WHEREAS, the quality of American Medicine was perfectly exemplified following the recent assassination attempt on President Reagan; and

WHEREAS, the medical staff and personnel at George Washington University Hospital, and others who cared for the assassination attempt victims, responded to the emergency in near perfect fashion; and

WHEREAS, the professional manner in which care was rendered and reported to the American people deserves special commendation; now, therefore be it

RESOLVED, that the House of Delegates of the American Medical Association expresses its deep appreciation and commendation to the physicians and health personnel who rendered superlative medical care to the President, members of his staff and guards who were injured in the assassination attempt on Monday, March 30, 1981.

RESOLUTION: 4  
(APPROVED)

INTRODUCED BY: Ken Whittington, MD

SUBJECT: Support for the American Association of Medical Assistants (AAMA)

REFERRED TO: Reference Committee I

WHEREAS, The American Association of Medical Assistants (AAMA) is an educational organization, whose primary goal is providing quality continuing education and certification for medical assistants who work for and under the supervision of a physician for the welfare of the patient; and

WHEREAS, AAMA provides scholarships to aspiring and deserving medical assistants in accredited programs; and

WHEREAS, AAMA provides a communica-

tion link on an interoffice level throughout the state of Oklahoma; and

WHEREAS, On many occasions the AAMA members have volunteered to assist the Oklahoma State Medical Association on projects where additional personnel would have been hired; therefore be it

**RESOLVED**, That the House of Delegates of the Oklahoma State Medical Association encourage its members to support the AAMA by allowing their medical assistants to join AAMA and, where possible, lend financial assistance to that end.

### **Report of REFERENCE COMMITTEE NO. II**

Presented by: Carroll Holsted, MD, Kingfisher

Mr Speaker and Members of the House of Delegates, Reference Committee No. II has carefully considered the items which were referred to it and submits the following report:

#### **ITEM I. REPORT OF THE COUNCIL ON PUBLIC AND MENTAL HEALTH.**

Mr Speaker, your Reference Committee carefully examined the Report of the Council on Public and Mental Health and recommends that the report be approved.

*Mr Speaker, I move adoption of this portion of the report.*

#### **ITEM II. REPORT OF THE MATERNAL MORTALITY COMMITTEE.**

Mr Speaker, your Reference Committee carefully considered the Report of the Maternal Mortality Committee and wishes to commend the committee. Your Reference Committee recommends that the Report of the Maternal Mortality Committee be approved.

*Mr Speaker, I move adoption of this portion of the report.*

#### **ITEM III. REPORT OF THE COMMITTEE ON PERINATAL HEALTH.**

Mr Speaker, your Reference Committee carefully considered and discussed at length the Report of the Committee on Perinatal Health. Your Reference Committee feels that the perinatal health program is commendable and encourages its continuation. The committee does not feel, however, that it is appropriate for the state association to continue funding a committee which it does not oversee and which is not appointed by the state president.

For that reason your Reference Committee recommends that the funding request of the Committee on Perinatal Health be rejected.

*Mr Speaker, I move adoption of this portion of the report.*

#### **ITEM IV. REPORT OF THE COUNCIL ON PROFESSIONAL AND PUBLIC RELATIONS.**

Mr Speaker, your Reference Committee carefully examined the Report of the Council on Professional and Public Relations and wishes to commend this council. The Reference Committee recommends that the Report of the Council on Professional and Public Relations be approved.

*Mr Speaker, I move adoption of this portion of the report.*

#### **ITEM V. REPORT OF THE OSMA-AMA JAIL PROJECT.**

Mr Speaker, your Reference Committee carefully considered the Report of the Jail Project and recommends that the report be approved.

*Mr. Speaker, I move adoption of this portion of the report.*

#### **ITEM VI. REPORT OF THE OSMA JOURNAL.**

Mr Speaker, your Reference Committee carefully considered the *OSMA Journal* Report and wishes to commend the Editor-in-Chief Mark R. Johnson, MD, as well as the entire Editorial Board. It is the opinion of this Reference Committee that the OSMA has an outstanding *Journal* which our association can take pride in. The Reference Committee recommends that the *Journal* Report be approved.

*Mr Speaker, I move adoption of this portion of the report.*

#### **ITEM VII. RESOLUTION NO. 6 — "SHORTAGE OF PSYCHIATRISTS."**

Mr Speaker, your Reference Committee carefully considered this resolution and heard lengthy testimony. All testimony pointed to both a statewide and national shortage of psychiatrists which is critical. For that reason your Reference Committee recommends that this resolution be approved.

*Mr Speaker, I move adoption of this portion of the report.*

#### **ITEM VIII. RESOLUTION NO. 9 — "ADVERTISING GUIDELINES."**

Mr Speaker, your Reference Committee carefully considered this resolution and discussed it at length. The guidelines which em-



body a majority of this resolution have been approved by the AMA Judicial Council and, therefore, affect all OSMA members. For that reason your Reference Committee does not feel that approval of the guidelines or approval of this resolution is necessary. Your Reference Committee took note of the fact that in its 75 years the OSMA has never adopted a formal position on physician advertising. For that reason your Reference Committee recommends that copies of the AMA Judicial Council Opinion be sent to all county medical societies and that Resolution No. 9 be rejected.

*Mr Speaker, I move adoption of this portion of the report.*

ITEM IX. RESOLUTION NO. 10 — "SMOKING BAN IN HOSPITALS."

Mr Speaker, your Reference Committee heard debate from several delegates regarding this resolution. While most delegates felt that this was an admirable goal, it was unanimously felt that enforcement of Resolution No. 10 would be impractical if not impossible. Therefore, your Reference Committee recommends that Resolution No. 10 be rejected.

*Mr Speaker, I move adoption of this portion of the report.*

ITEM X. RESOLUTION NO. 18 — "ADOLESCENT PREGNANCY."

Mr Speaker, your Reference Committee heard considerable debate about Resolution No. 18. During Executive Session, the Reference Committee discussed Resolution No. 18 at length. It is the opinion of your Reference Committee and the opinion of a majority of the Delegates who testified to this resolution that physicians should be free to provide methods of prevention of pregnancy to teenagers at risk in accordance with their best medical judgment. Your Reference Committee took note that an identical or essentially identical resolution was approved by this House at the 1980 Annual Meeting. Therefore, your Reference Committee recommends that this resolution be approved.

*Mr Speaker, I move adoption of this portion of the report.*

ITEM XI. RESOLUTION NO. 21 — "NUCLEAR, CHEMICAL AND BACTERIOLOGICAL CONTAMINATION."

Mr Speaker, your Reference Committee feels that continuing education courses on this subject would be extremely helpful to many physicians practicing in the state. For that reason

your Reference Committee recommends that this resolution be approved.

*Mr Speaker, I move adoption of this portion of the report.*

ITEM XII. RESOLUTION NO. 22 — "FLUORIDATION OF WATER SUPPLIES."

Mr Speaker, your Reference Committee was informed that the American Medical Association, the Canadian Medical Association, the American Dental Association and a great many other health organizations have gone on record in approving fluoridation of water supplies. Therefore, your Reference Committee recommends that Resolution No. 22 be approved.

*Mr. Speaker, I move adoption of this portion of the report.*

*Mr Speaker, I move adoption of this report as a whole.*

Mr Speaker, as Chairman of this Reference Committee, I would like to thank the committee members and the staff for their cooperation and work on this committee report.

Carroll Holsted, MD, Chairman

Ed Dalton, MD

Billy D. Dotter, MD

Rayburne W. Goen, Sr., MD

Thurman Shuller, MD

Richard L. Hess, Staff

Reneé Culver, Staff

Report of the  
COUNCIL ON PUBLIC AND  
MENTAL HEALTH  
(APPROVED)

INTRODUCTION:

It is the goal of the Council on Public and Mental Health to provide the citizens of this state as well as OSMA members with timely information regarding the medical aspects of public and mental health and to conduct and oversee needed programs in these areas.

REVIEW OF ACTIVITIES:

The activities of the Council on Public and Mental Health for the 1980-81 year were largely determined by the report of the council which was approved by the House of Delegates in May, 1980, and by the committees which operate under the council's guidance. The following is an update on the approved program for the Council on Public and Mental Health



and the committees which operate with the council's direction.

*A. Health Education:* Much of the council's efforts in the area of health education were directed toward the Oklahoma Health Education Advisory Council. This council is made up of representatives from various health and education groups, and this year's strategy was to introduce and pass comprehensive health education legislation through the Oklahoma Legislature. Legislation entitled, "The Comprehensive Health Education Act (SB 136)," was introduced by its principal author, Senator Phil Watson (R-Edmond). This legislation was the outgrowth of efforts by the Oklahoma Health Education Advisory Council and had this council's support. The OSMA Board of Trustees reviewed the legislation and voted to support the principle of comprehensive health education but failed to support this specific legislation because they feared that it could be amended. When the OSMA Legislative Committee reviewed the legislation, it took a position of neutrality. Since SB 136 was introduced it has been amended severely and no longer has the endorsement of the Council on Public and Mental Health.

*B. Committee on Environmental Quality:* The Committee on Environmental Quality met twice during the organizational year with 100 percent attendance on both occasions. The committee considered a number of environmental issues, including drinking water standards which were to have been put into effect January 1, 1981, by the Environmental Protection Agency. These standards relate to acceptable levels of natural fluoride in water sources and would have affected a number of Oklahoma communities. The committee drafted a resolution to the EPA which urged that these standards not be put into effect until further study is performed, and this resolution received the support of the Board of Trustees. Copies were sent to the EPA and the Oklahoma Congressional Delegation and eventually implementation of these standards was delayed.

The committee also reviewed legislation which related to environmental issues and made recommendations to the OSMA Legislative Committee. This legislation dealt with matters ranging from the Oklahoma State Department of Health's authority relating to the preparation of food to disposal of industrial

waste. Physician education continued to be a primary concern of the committee and to that end the committee voted to put together a program for next year's annual meeting on environmental issues. Additionally, articles on environmental issues are being placed in *The Journal of the Oklahoma State Medical Association*.

*C. Mobile Drug Abusers:* The council has attempted to fulfill the requests of the Task Force on Mobile Drug Abusers and the resolution on mobile drug abusers which was approved in May, 1979. A great deal of conversation has taken place regarding what can be done to solve this problem, and a series of articles in the *OSMA Journal* has begun. Ron Krug, PhD, who is with the Department of Psychiatry at the University of Oklahoma College of Medicine, is well-versed in the area and an interview was conducted with Dr Krug. Additionally, an article from the *AMA News* entitled, "Don't Be Deceived By a Drug Addict," is being rewritten and reprinted in a number of segments. The council will continue to seek innovative ways in which to deal with this problem.

*D. Liaison Committee with Oklahoma Pharmaceutical Association:* At last year's annual meeting a resolution was approved instructing the OSMA to develop a liaison committee with the Oklahoma Pharmaceutical Association and to examine common problems and develop better lines of communication. A five-person committee was appointed by both the OSMA and the Pharmaceutical Association, and a meeting was set up in February. Unfortunately, inclement weather on the day of the meeting forced its cancellation and to date the meeting has not been able to be rescheduled. Both OSMA staff and our officers have been in contact with representatives of the Pharmaceutical Association and through these efforts better lines of communications have been developed. The council still plans, however, for the Liaison Committee to meet as a whole and begin formal discussions of any problems which may exist.

*E. Maternal Mortality Committee:* This committee is established by an Oklahoma statute and operates independently from this council and the association. A committee report is attached as an addendum.

*F. Perinatal Task Force:* Last year the OSMA House of Delegates approved \$500.00 in support to the Perinatal Task Force which, again, operates independently of the OSMA. A



report of this task force is attached as an addendum.

*G. Other Action:* During the year a severe shortage of psychiatrists was brought to the attention of this council, and we were asked to take action in an effort to solve this problem. It was pointed out that Oklahoma has only about one-half of the psychiatrists it requires, and the state has fewer per capita than any state in the region. The council strongly feels that this is a serious problem and believes that both the statewide and nationwide shortage of psychiatrists should be seriously studied. A resolution has been submitted by the council in an effort to bring this issue to the attention of organized medicine.

Throughout the year, the council worked closely with the Oklahoma State Department of Health and reviewed several pieces of legislation making recommendations to the OSMA Legislative Committee. The council recommended that the state do away with mandatory premarital blood tests as they no longer appear to be cost effective. The council also reviewed proposed changes in mental health laws making appropriate recommendations to the Legislative Committee.

#### OBJECTIVES:

The Council on Public and Mental Health plans to continue and to expand its approved programs. During the 1981-82 year, the council plans to work closely with the Oklahoma State Department of Health and the Mental Health Department. Additionally, the council plans to continue to search for ways to approach the problem of mobile drug abusers and will formalize and strengthen its relationship with the Oklahoma Pharmaceutical Association. The council intends to continue to support the Maternal Mortality Committee, the Committee on Environmental Quality and other programs in the area of public and mental health.

#### RECOMMENDATIONS:

The specific recommendations of the Council on Public and Mental Health for the 1981-82 year, plus budgetary requirements are as follows:

A. Committee on Environmental Quality	\$1,000.00
B. Maternal Mortality Committee	\$ 250.00
C. Internal Education Programs	\$1,000.00
	\$2,250.00

Respectfully submitted,  
Chester L. Bynum, MD, Chairman  
E. M. Bricker, Jr., MD  
Hayden H. Donahue, MD  
Delmar L. Gheen, MD  
Mark R. Johnson, MD  
Daniel F. Keller, MD  
Mark A. Kelley, MD  
George W. Prothro, MD  
C. E. Smith, Jr., MD  
Adolph N. Vammen, MD  
John K. Pirtle, MD  
Sara DePersio, MD  
Patricia McKnight, MD  
David S. Sholl, MD  
Gordon H. Deckert, MD  
Don Inbody, MD  
Robert E. Ashley, MD  
Fred Garfinkel, MD  
Betty Conrad, MD  
Edward K. Norfleet, MD  
Robert Wienecke, MD  
Joan K. Leavitt, MD  
Richard G. Griffin, MD

#### Report of the MATERNAL MORTALITY COMMITTEE (APPROVED)

Subject: Annual Report

Presented by: Adolph N. Vammen, MD,  
Chairman

Referred to: Reference Committee II

The Maternal Mortality Committee has determined that approximately 70 percent of maternal deaths are preventable, provided circumstances are ideal. In the review of deaths, we attempt to identify "factors of preventability" and "factors of responsibility." The preventability of a pregnancy-related death is judged by ideal standards. The ideal standard assumes that the patient possessed the knowledge and judgment necessary to obtain sufficient medical care, that the community had adequate obstetrical facilities, that the health professionals possess current knowledge and skill, and that the professionals had available well-organized and experienced health personnel. The factors of responsibility are identified and assigned to the patient, the community, the maternity unit, the professional, or to any combination thereof.

This approach permits the committee to identify areas in need of patient health education, to point out inadequacies in obstetrical facilities, and to motivate continued professional education. This approach hopefully will help reduce pregnancy-related deaths in Oklahoma. Several years ago, the Maternal Mortality Committee identified unavailability of adequate blood supplies as one factor which led to "preventable maternal deaths." A report to this effect was delivered to the Oklahoma State Medical Association and as a result blood stocking patterns were changed in many areas. Through public and professional education, the Maternal Mortality Committee can be most effective in achieving its goal of decreasing the numbers of "preventable maternal deaths."

Respectfully submitted,

Adolph N. Vammen, MD  
Chairman

Report of the  
COMMITTEE ON PERINATAL HEALTH  
An Addendum to the  
Report of the Council on  
Public and Mental Health  
(REPORT APPROVED, BUDGET  
REJECTED)

The Committee on Perinatal Health is currently involved in a number of different projects: *Educational activities*: The committee recently surveyed physicians practicing obstetrics in Oklahoma. Those physicians responding to the questionnaire expressed a desire for postgraduate medical education, particularly if brought to their local community as opposed to courses in large medical centers. The physicians surveyed also felt the need for upgrading nurse education in their hospitals. According to these wishes, the committee is presenting workshops in the different rural hospitals. Workshops on Neonatal Resuscitation have been presented by neonatologist-neonatal nurse teams in the following communities: Cushing, Drumright, Pryor, Jay, Poteau, Stilwell, Miami, Pawhuska, Tahlequah, Sapulpa, Wagoner, Henryetta, and Pawnee. Perinatologists have presented talks on Assessment of Fetal Well-Being in Pawnee,

Cushing, Jay, Miami, Frederick and Hobart.

These programs have been accredited for 1 credit hour in Category I of the Physician's Recognition Award of the AMA and 1 hour of prescribed credit by the American Academy of Family Practice. In addition, a series of articles on Maternal and Infant Care is planned for publication in *The Journal of the Oklahoma State Medical Association*. They deal with basic aspects of neonatal care, identification of sick newborns and high risk pregnancies and update on current trends on perinatal care. The articles are intended to provide ready reference material and practical information for the busy family physician and general practitioner involved with perinatal care in rural areas of the state. The first such article authored by Drs Crosby and Sheldon appeared in the January issue of *The Journal*.

*Rural Infant Care Program* — The Robert Wood Johnson Foundation has awarded a grant to the University of Oklahoma (both Oklahoma City and Tulsa Clinical campuses) for the purpose of improving the outcome of pregnancy and infant care in Oklahoma. Three Oklahoma counties in the Southwest and three in the Northeast have been selected as sites for the Rural Infant Care Program. The State Health Department and the Committee on Perinatal Health are co-participants in this project, which is expected to serve as a model for the development of a statewide program. A subcommittee of the Committee on Perinatal Health has been assigned to deal with consumer education in prenatal and neonatal care. A high risk pregnancy brochure has already been developed. A "speakers bureau" supplies information to lay groups.

*Quality of Family Life Conference* — The Committee on Perinatal Health and the Oklahoma Chapter of the March of Dimes will jointly sponsor a statewide conference. The purpose of the conference is to bring together Oklahomans representing a variety of interests in an effort to examine those factors affecting the quality of life in children, their mothers and families, develop viable models for community implementation, maximize and integrate existent resources into a comprehensive system and to establish specific goals and ways to measure achievement of those goals. In preparation for this conference four task forces have been created: Family of Life, Childbearing, Teenage Pregnancies and Developmental Delays.



The conference which is scheduled for autumn 1982 will discuss the reports of the different task forces and will establish a statewide coalition of quality of family life. The seminal impetus created by the conference is expected to result in the establishment of post-conference action committees for the implementation monitoring of effected changes and achievement of the conference goals.

#### PROPOSED BUDGET:

Postage	\$200.00	
Expendable Supplies	180.00	
Travel (to and from committee meetings.)	1824.00	
Total		\$2204.00

Respectfully submitted,  
George P. Giacoia, MD  
Chairman

#### Report of the COUNCIL ON PROFESSIONAL AND PUBLIC RELATIONS (APPROVED)

#### INTRODUCTION:

The Council on Professional and Public Relations has been charged with the internal and external communications program of the Oklahoma State Medical Association. It is the council's goal to maintain and improve relationships with other professional organizations and to increase membership participation and thereby improve the association's rapport with all physicians.

#### REVIEW OF ACTIVITIES:

For the past year the public relations program of the Oklahoma State Medical Association has been conducted through the Council on Professional and Public Relations in accordance with the program approved by the House of Delegates at the 1980 Annual Meeting. Among other activities, the council has continued to oversee publication of many OSMA newsletters, plus *The Journal of the Oklahoma State Medical Association*. This council is primarily responsible for *OSMA News*, a general association newsletter, but also has secondary responsibilities for other OSMA newsletters as they are a part of the overall communications program. These newsletters which are produced by other OSMA councils include *OSMA Legislative Update*, *Medical Cost Update*, *Malpractice Update*, and *PLICO News*.

One of the principal activities of the association during the past year was again the highly successful public service program. Shortly before the 1980-81 organizational year began, OSMA released two new public service spots. These spots were aired throughout most of the past organizational year and dealt with medical cost containment and physician placement. It is estimated that these spots received approximately \$100,000 in air time; the association investment in these spots was approximately \$10,000.

The Council on Professional and Public Relations feels this is one of the most cost effective of all OSMA activities and will recommend its continuance.

The council also continued to make medical update brochures available to OSMA members at no cost. The current brochures deal with cost containment, health education and CPR. These brochures were released during early 1980 but are still current and are still in great demand. For this reason the council has decided not to replace the brochures at this time, but instead reordered additional copies for distribution. Since this project was initiated four years ago, over one-quarter million brochures have been distributed through physicians' offices.

The council has also made efforts to export the medical update program and the public service program to other state medical societies. A number of states have indicated an interest in projects similar to medical update, and the public service announcement program has been even more successful. During the 1980-81 year, OSMA sold a total of ten public service spots to three state medical societies. This enabled OSMA to recoup approximately \$1750.00 of the original production costs. In all, seven state medical societies have now purchased public service announcements produced by OSMA. Even greater activity is expected in the future. In February of this year Richard Hess, OSMA associate executive director, conducted a program in Chicago on association use of public service announcements. Approximately fifty public relations directors of state and county medical societies were present and many indicated an interest in purchasing OSMA-produced spots.

The council also continued its activities in the area of media relations and served as a contact for most of the state's medical reporters. OSMA staff worked directly with reporters on story development and was instrumental in



the placement of a number of favorable medical reports. News releases and newsletters were circulated on a timely basis throughout the year.

In March, 1981, the council met to consider recipients for the OSMA Medical Journalism Award. This year for the first time two reporters were selected. Selected to receive this year's award were Jim Killackey of the *Daily Oklahoman* and Cecil Peaden of the *Tulsa Tribune*. Each will receive a plaque in their honor and a \$500 scholarship will be presented to the journalism school of their choice.

Due to a number of unforeseen events, the council's recommendations for 1980-81 were changed somewhat. As stated previously, the council found that the brochures being used in the medical update series remained timely and in demand. For that reason new brochures were not printed, and the \$4,000.00 was not expended. Additionally, the council chose not to produce new public service announcements during 1980-81 because those released in the spring of 1980 continued to be aired. The council does, however, recommend that this program be expanded during 1981-82 and that three additional spots be produced. The council feels that the need for an audio-visual presentation no longer exists and recommends that this item be deleted. The council's efforts in the area of membership recruitment continue to be successful, and OSMA was one of only three states recognized for increasing its membership totals for the eighth consecutive year. Due to recommendations from the Executive Committee and from the Board, activities in the area of student recruitment have been ceased.

#### OBJECTIVES:

In order to meet the objectives of the council and the association, the Council on Professional and Public Relations suggests that the items listed in the recommendation section of this report be approved. Additionally, the council recommends continued publication of *The Journal of the Oklahoma State Medical Association* and the various other newsletters and brochures which serve OSMA. Via this report the Council on Professional and Public Relations requests that a series of dinner meetings with members of the press be incorporated with regularly scheduled meetings of the Ex-

ecutive Committee. It is recommended that on at least two occasions during the 1981-82 year, the President, President-Elect and Vice-President meet with two or three members of the Oklahoma medical press in a dinner setting. OSMA staff members should include the Executive Director and the Director of Communications.

The council also recommends continuance and further development of a program initiated shortly before the end of the 1980-81 organizational year. OSMA has entered into a program with the Burroughs Wellcome Company whereby weekly radio interviews will be provided to affiliate stations of the Oklahoma News Network. OSMA receives all credit for these programs and Burroughs Wellcome is never mentioned. The association retains responsibility for selecting topics and physicians to be interviewed and does so through a questionnaire which was sent to all members of the association. The council feels this is a very worthwhile project and recommends its continuance into 1981-82.

The council also recommends development of a corporate visitation program. Programs such as this have been used successfully in other states as a means of bringing together representatives of industry and the profession. It is the recommendation of the Council on Professional and Public Relations "that the executive officers of OSMA participate in a corporate visitation program directed at Oklahoma's large corporations and employers. The council recommends that if actuarial studies show that the CHIP proposal of the Louisiana State Medical Society is a viable alternative to current health care financing that this proposal become an integral part of the visitation program."

#### RECOMMENDATIONS:

Specific recommendations of the Council on Professional and Public Relations for the 1981-82 year, plus budgetary requirements are as follows:

- A. Media recognition award \$500.00
- B. Production of medical update brochures \$5,000.00
- C. Production of public service announcements (3) \$15,000.00
- D. Educational activities and professional dues \$3,000.00
- E. Meetings with members of the news media (dinner meetings held in conjunction



with Executive Committee)	\$1,000.00
F. Burroughs-Wellcome inter-	
view series	\$500.00
	<u>\$25,000.00</u>

G. Several years ago the association developed a contingency fund of approximately \$40,000.00 designed to be used in counteracting harmful utilization review regulations which were originally handed down by HEW. Due to changes in the law it was not necessary to use this fund and since that time it has been held in a savings account and earmarked to be used in a public relations/advertising program against passage of national health insurance. The council recommends that this fund continue to be earmarked for this purpose.

Respectfully submitted,

M. Joe Crosthwait, MD, Chairman

Alvin Rix, MD  
 Armond Start, MD  
 Jerry L. Bressie, MD  
 John R. Christiansen, MD  
 Paul Silverstein, MD  
 Robert J. Weedn, MD  
 Stanley Jett, MD  
 Sidney D. Williams, MD  
 Ralph Payne, Jr., MD  
 William E. Harrison, Jr., MD  
 Robert J. Hudson, MD  
 Gerald Zumwalt, MD  
 Steve Landgarten, MD  
 Milton Workman, MD  
 James Lakin, MD  
 John Bozalis, MD  
 Manuel J. A. Hinds, MD  
 Richard L. Hess, staff

Special Report of the  
 OSMA/AMA JAIL PROJECT  
 (APPROVED)

The Oklahoma State Medical Association has almost completed its second year in a jail project sponsored by the American Medical Association and the Law Enforcement Assistance Administration. The initial thrust of the project was to implement standards developed by the AMA that would help improve the medical care rendered in county and some city jails.

The Oklahoma project has worked with ten jails throughout the state to try and define their needs and find ways to improve their delivery of health care.

Perhaps the most successful portion of the project has been the development of training programs to be conducted around the state. During the month of June, 1980, OSMA, in conjunction with the Oklahoma Crime Commission and the Law Enforcement Training Center, conducted a week-long workshop for jail personnel. It was held in Oklahoma City and 33 jailers from around the state attended the workshop, covering a variety of subjects including one and one-half (1½) days on health care. The response from the week-long workshop was phenomenal to the point that four additional workshops were developed to be held during the first part of 1981. The dates and locations are as follows:

February 9-13—Cameron University, Lawton, OK

April 20-24—Enid Police Dept., Enid, OK

April 27-May 1—East Central University, Ada, OK

May 4-8—Holiday Inn South, Muskogee, OK

The workshops cover all aspects of jail work, including correctional law, security and control of inmates, fire safety, food procurement, a half-day on CPR, and a full day on common medical problems and medical emergencies in jails. The project owes a great deal of praise to the personnel in the Department of Corrections for their help in developing the courses on health care as well as providing training personnel to carry out the actual workshop.

Another goal of the project is to develop a communication network that will be available to the various jails in the state to lend assistance whenever possible as it relates to their needs for improved health care. For example, suppose a jail in southeast Oklahoma is having trouble finding a physician to render medical care on any regular basis. The sheriff in charge of the jail could call OSMA and relate the problem and then OSMA, through the project, would look for ways to solve the problem, perhaps by calling the county medical society and working out a suitable arrangement with a member physician.

The various rulings handed down by Judge Luther Bohanan have had a drastic effect on the prison system, which has logically overflowed into the county jail system. For that reason alone, the OSMA jail project has been an effective aid to the jails by being available

to help with solutions. Likewise, the project will have continued success in Oklahoma since the matter of prison population and reform will not be solved quickly.

Respectfully submitted,  
James B. Pitts, MD, Chairman  
Project Advisory Committee

Donald Cooper, MD  
Bob Fogel, DO  
R. R. Boone, Jr., MD  
Jerry D. McCall, MD  
Lyle Kelsey, OSMA Staff

Report of the  
*JOURNAL OF THE*  
*OKLAHOMA STATE MEDICAL*  
*ASSOCIATION*

An Addendum to the Report of the  
Council on Professional and  
Public Relations  
(APPROVED)

The Editorial Board continues to oversee publication of *The Journal of the Oklahoma State Medical Association*. In 1979, *The OSMA Journal* suffered the loss of longtime friend and contributor Ernest Lachman, MD, corresponding editor and regents professor emeritus of anatomical and radiological sciences. Solomon Papper, MD, has now assumed Dr Lachman's position on the board and serves as corresponding editor.

Several years ago, our *Journal* was awarded the Sandoz Medical Journal Award for being judged the outstanding publication in its category in national competition. The \$500 cash prize was set aside to provide an award each year for the outstanding paper submitted by a medical student. The first such award was granted in 1979, but for the past two years no papers have been received from medical students. For that reason, the Editorial Board recommends that the purpose of this fund be changed and be set aside now to provide a runner-up award in competition for the best scientific paper submitted each year. The first place award is provided through the Charlotte S. Leebron Memorial Trust.

In the first year of competition Hanna A. Saadah, MD, author of "Washed Sputum Gram Stain and Culture in Pneumonia: A Practical Tool for the Clinician," has been selected to receive the first place award for scientific contributions from the Charlotte S. Leebron Memorial Trust. Bruce Hart, MD, author of "Legionnaires Disease: Rapid Diagnosis by Direct Immunofluorescence of Sputum, Report of Three Sporadic Cases," has been selected to receive the runner-up award from the Sandoz Medical Journal account. Dr Saadah will be on hand during the Closing Session of the House of Delegates to receive the Charlotte S. Leebron Award.

The Editorial Board continues to monitor the financial status of *The Journal of the Oklahoma State Medical Association*. Considering *The Journal* is one of OSMA's principal membership benefits, the Editorial Board is not overly concerned that the publication's financial status is in the red. The Editorial Board does recommend, however, a ten percent (10%) increase in advertising rates to offset anticipated increases in publication costs.

Respectfully submitted,  
Mark R. Johnson, MD  
Editor-in-Chief  
Harris D. Riley, MD  
Editor  
Robert G. Tompkins, MD  
Editor  
Solomon Papper, MD  
Corresponding Editor

RESOLUTION: 6  
APPROVED

INTRODUCED BY: Council on Public and  
Mental Health  
SUBJECT: Statewide Shortage of Psychia-  
trists  
REFERRED TO: Reference Committee II

WHEREAS, The state of Oklahoma is currently experiencing a serious shortage of licensed psychiatrists; and

WHEREAS, This shortage approaches nearly fifty (50) percent of the state's estimated need; and

WHEREAS, Oklahoma has fewer psychiatrists for its population than any state in the area; and



WHEREAS, The number of students entering psychiatric residencies is steadily declining and will result in even more severe shortages; and

WHEREAS, This phenomenon is in direct contrast to the expected surplus of physicians which is predicted to occur by the year 1990; therefore be it

**RESOLVED**, That the House of Delegates of the Oklahoma State Medical Association hereby pledges its support to efforts to increase the number of licensed and practicing psychiatrists in the state; and be it further

**RESOLVED**, That the OSMA House of Delegates encourages the state's medical colleges to closely study this problem and take necessary remedial action; and be it further

**RESOLVED**, That the House of Delegates of the Oklahoma State Medical Association hereby requests that the American Medical Association be requested to study the national shortage of psychiatrists and support action designed to remedy this serious problem.

RESOLUTION: 9  
(REJECTED)

INTRODUCED BY: Council on Professional and Public Relations

SUBJECT: Physician Advertising Guidelines

REFERRED TO: Reference Committee II

WHEREAS, Recent changes in the American Medical Association's Code of Medical Ethics have altered the guidelines for physician advertising; and

WHEREAS, The Oklahoma State Medical Association has never adopted formal advertising guidelines; and

WHEREAS, OSMA is frequently contacted by physicians regarding what is permissible and recommended in the area of physician advertising; and

WHEREAS, The AMA Judicial Council has adopted recommendations which meet both the requirements of the Principles of Medical Ethics and the Federal Trade Commission; therefore be it

**RESOLVED**, That the Oklahoma State Medical Association hereby endorses the following statement of policy:

The Oklahoma State Medical Association recommends that physicians not engage in advertising. The guidelines adopted by the

AMA Judicial Council in January, 1981, are recommended to county medical societies in order to provide assistance to physicians who may choose to advertise.

Advertising and Publicity

There are no restrictions on advertising by physicians except those that can be specifically justified to protect the public from deceptive practices. A physician may publicize himself as a physician through any commercial publicity or other form of public communication (including any newspaper, magazine, telephone directory, radio, television or other advertising), provided that the communication shall not be misleading because of the omission of necessary material information, shall not contain any false or misleading statement, or shall not otherwise operate to deceive.

The form of communication should be designed to communicate the information contained therein to the public in a direct, dignified and readily comprehensive manner. Aggressive, high-pressure advertising and publicity may create unjustified medical expectations. Any advertisement or publicity, regardless of format or content, should be true and not misleading.

The communication may include: (a) the educational background of the physician; (b) the basis on which fees are determined (including charges for specific services); (c) available credit or other methods of payment; and (d) other information about the physician which a reasonable person might regard as relevant in determining whether to seek the physician's services.

Testimonials of patients, however, as to the physician's skill or the quality of his professional services should not be publicized. Statements relating to the quality of medical services are extremely difficult, if not impossible, to verify or measure by objective standards. Claims regarding experience, competence and the quality of the physician's services may be made if they can be factually supported and if they do not imply that he has an exclusive and unique skill or remedy. A statement that a physician has cured or successfully treated a large number of cases involving a particular serious ailment may imply a certainty of result and create unjustified and misleading expectations in prospective patients.

Consistent with Federal regulatory standards which apply to commercial advertising, a physician who is considering the placement of

an advertisement or publicity release, whether in print, radio or television, should determine in advance that his communication or message is explicitly and implicitly truthful and not misleading. These standards require the advertiser to have a reasonable basis for claims before they are used in advertising. The reasonable basis must be established by those facts known to the advertiser, and those which a reasonable, prudent advertiser should have discovered.

As used herein, references to a "physician" applies also to information relating to the physician's group, partners or associates. Any communication or message within the scope of this opinion should include the name of at least one physician responsible for its content.

RESOLUTION: 10  
(*REJECTED*)

INTRODUCED BY: Raymond Maguire, MD,  
Tulsa  
SUBJECT: Ban of Tobacco Smoking in All  
Hospital Patient Areas  
REFERRED TO: Reference Committee II

WHEREAS, When patients are admitted to hospitals regardless of size, they are entitled to an isolated environment, which in association with other therapeutic measures in use, should be conducive to restoring their physiology to those levels which may allow them to participate in activities of daily living; and

WHEREAS, It has been shown that direct smoking with inhalation of incompletely oxidized combustion products of tobacco is harmful to this individual; and

WHEREAS, Secondary smoke which is constituted by those products of incompletely burned tobacco is harmful to occupants of the same physical area; and

WHEREAS, Other states have banned or restricted smoking in certain enclosed areas and such bans or restrictions are being considered in at least 24 other states, in dozens of cities and towns around the nation; and

WHEREAS, Patients in, visitors to and employees of hospitals often have disease adversely affected by inhalation of tobacco smoke; therefore be it

*RESOLVED*, That the State of Oklahoma ban tobacco smoking in all patient areas in hospitals.

RESOLUTION: 18  
(*APPROVED*)

INTRODUCED BY: The Oklahoma Academy  
of Family Physicians  
SUBJECT: Prevention of Pregnancy Among  
Adolescents  
REFERRED TO: Reference Committee II

WHEREAS, Unwanted pregnancy among teenage girls in Oklahoma has emerged as the leading health problem in this age group today; and

WHEREAS, Live births to girls less than 15 years of age in Oklahoma is increasing at a rate five times the national average; and

WHEREAS, Oklahoma taxpayers pay as much as 68 million dollars annually for support of teenage mothers and their babies; and

WHEREAS, The effect of the unwanted pregnancy is frequently and permanently devastating to the young mother, her baby, the extended family, and society as a whole; and

WHEREAS, Pregnancy is preventable; therefore be it

*RESOLVED*, That the Oklahoma State Medical Association will actively support the development of health and family life curricula in the public schools of Oklahoma, which will emphasize the importance of conception of life within the framework of a stable family unit and the profound responsibilities of parenthood; and be it further

*RESOLVED*, That the OSMA will actively seek new legislation which will free the physicians of Oklahoma to provide methods of prevention of pregnancy to teenagers at risk, in accordance with their best medical judgment.

RESOLUTION: 21  
(*APPROVED*)

INTRODUCED BY: Oklahoma County Medical Society  
SUBJECT: Nuclear, Chemical and Bacteriologic Contamination  
REFERRED TO: Reference Committee II

WHEREAS, there is the potential for nuclear, chemical and bacteriological disaster befalling the civil populace in the State of Oklahoma as the result of hostile military action or as the result of mishap; and

WHEREAS, the physicians in Oklahoma are generally uninformed about the appropriate



medical responses to such disaster; now, therefore be it

**RESOLVED**, That the Council on Medical Education of the Oklahoma State Medical Association take action and urge the institutions accredited by them for the offering of Category I courses for Continuing Medical Education, that within the calendar years of 1981, 1982 or 1983, each institution offer a course dealing with the medical response to nuclear, chemical and bacteriological injury or contamination of significant segments of the civil population.

RESOLUTION: 22  
(APPROVED)

INTRODUCED BY: Council on Public and Mental Health

SUBJECT: Fluoridation of Water Supplies

REFERRED TO: Reference Committee II

WHEREAS, Community water fluoridation has had a long and successful history in Oklahoma, and

WHEREAS, Many communities in this state have been successfully fluoridating water supplies since the early 1950's, and

WHEREAS, It has been estimated that the dental health of millions of Americans has been improved as a result of fluoridation, and

WHEREAS, The American Medical Association, the American Dental Association, and many other health organizations endorse and encourage fluoridation, therefore be it

**RESOLVED**, That the House of Delegates of the Oklahoma State Medical Association hereby expresses its support for fluoridation of community water supplies.

Report of  
REFERENCE COMMITTEE NO. III

Presented by: Lanny Trotter, MD, Chairman

Mr Speaker and Members of the House of Delegates, Reference Committee No. III has carefully considered the items which were referred to it and submit the following report:

ITEM I. REPORT OF THE COUNCIL ON GOVERNMENTAL ACTIVITIES

Mr Speaker, your Reference Committee heard presentation of this report from Perry

Lambird, Council Chairman. Testimony heard by the Reference Committee centered around the amount of work done by this Council and, specifically, the development of an extensive position paper.

Your Reference Committee recommends adoption of the report of the Council on Governmental Activities with a specific commendation to the Chairman and Council members for their white paper on federal medical and health issues. The Reference Committee encourages all physicians to read this document.\*

*Mr Speaker, I move adoption of this portion of the report.*

ITEM II. REPORT OF THE COUNCIL ON MEDICAL SERVICES

Mr Speaker, your Reference Committee considered the report of the Council on Medical Services by sections with related Resolutions.

SECTION A — HEALTH PLANNING AND RESOLUTION NO. 2

Reference Committee III heard much discussion on the ineffectiveness of the federal health planning laws and respective function of the Oklahoma Health Systems Agency. The Committee also lauds the AMA for its direct involvement in encouraging the Administration and Congress to repeal the health planning laws. The discussion was totally in support of this section of the report as well as Resolution No. 2. The Reference Committee heard comments that physicians in Oklahoma were doing health planning prior to federal interruption. Respectively, the Committee recommends amending Resolution No. 2, line 13, by inserting the word "further" after "Association" and before "develop." The Committee recommends adoption of Section A and Resolution No. 2 as amended.

*Mr Speaker, I move adoption of this portion of the report.*

SECTION B—OSMA PEER REVIEW

Mr Speaker, your Reference Committee heard discussion on Section B concerning the OSMA Peer Review Committee. The Reference Committee makes special note to the House that this item has no connection with the OURS program or Foundation for Peer Review or PSRO. This is in reference to the physician peer review that has functioned within OSMA for many years.

Your Reference Committee recommends adoption of this section of the report as well as the revised peer review guidelines.

*Mr Speaker, I move adoption of this portion of the report.*

#### SECTION C—LIAISON WITH ORGANIZED NURSING

Mr Speaker, your Reference Committee considered this section of the report, along with Resolutions No. 3, 12 and 15. Considerable testimony was heard with reference to the whole issue of the nursing shortage and the published master plan for nursing by 1990. The thrust of the discussion was that physicians support all programs that would improve the numbers of direct patient care nurses but do not support the concept that all nurses need to possess a 4-year degree.

Reference Committee III recommends adoption of this section of the report as well as Resolutions No. 3 and 15.

While the 3-year nursing programs have proven to provide top quality nurses, the program is an academic handicap for advancement to a baccalaureate degree. Resolution No. 3 is inclusive of all levels of nursing education; therefore, the Reference Committee recommends Resolution No. 12 not be adopted.

*Mr Speaker, I move adoption of this portion of the report.*

#### SECTION D. PHYSICIAN PLACEMENT

Mr Speaker, your Reference Committee considered this section of the report with reference to the Physician Manpower Training Commission.

Your Reference Committee recommends adoption of this section of the report with the special commendation to the Physician Manpower Training Commission and the fine job they have done for physician placement in Oklahoma. Special mention is also given to the attached policy statement of the PMTC, specifically, the last paragraph "The Commission wishes to go on record as advocating that Oklahoma should not—in the next 5 years — consider a reduction of enrollment in its two medical colleges . . ."

*Mr Speaker, I move adoption of this portion of the report.*

#### SECTION E. AMBULATORY SURGERY

Mr Speaker, your Reference Committee listened to discussion on this section of the report and related Resolutions No. 13 and 14. The comment centered around the concern that physicians should have control over the decision to utilize ambulatory settings when patient safety and good medical judgment can be assured.

Resolutions No. 13 and 14 are very similar and appear to be redundant. Resolution No. 14 seems to incorporate the intent of 13. Therefore, your Reference Committee recommends adoption of this section of the report and Resolution No. 14 in lieu of Resolution No. 13.

*Mr Speaker, I move adoption of this portion of the report.*

#### ITEM III. REPORT OF THE OKLAHOMA MEDICAL POLITICAL ACTION COMMITTEE

Mr Speaker, your Reference Committee heard comments from Orange Welborn, MD, Chairman of OMPAC, concerning the activities of the OMPAC Board.

Reference Committee III recommends adoption of the OMPAC report.

*Mr Speaker, I move adoption of this portion of the report.*

#### ITEM IV. RESOLUTIONS NO. 8, 19, 20

Mr Speaker, your Reference Committee considered Resolutions No. 8, 19 and 20, relating to federally mandated PSRO's. An extreme amount of testimony was heard on the continued dissatisfaction of Oklahoma physicians with any and all federal PSRO's. Even though the Resolutions are very similar, the mood of the testimony indicated the need for acceptance of all three Resolutions. Therefore, your Reference Committee recommends adoption of Resolutions No. 8, 19 and 20.

*Mr Speaker, I move adoption of this portion of the report.*

#### ADDENDUM TO REFERENCE COMMITTEE REPORT NO. 3

Resolution No. 1 was inadvertently left out of this Report.

#### ITEM IV (a) — RESOLUTION NO. 1

Mr Speaker, your Reference Committee re-



commends adoption of Resolution No. 1.

*Mr Speaker, I move adoption of this portion of the report.*

#### ITEM V RESOLUTIONS NO. 5 AND 17

Mr Speaker, Resolutions No. 5 and 17 address the very serious problem of patient discrimination by third parties who administer medical benefit programs. The issue is extremely complex and could not be resolved completely by the passage of either or both resolutions. In addition, acceptance of Resolutions No. 5 and 17 could potentially create very serious difficulties for the Association inasmuch as they could be construed to advocate a monolithic fee reimbursement schedule. The Association has historically supported the free enterprise system and free market forces in the pricing and delivery of medical services. Testimony before the Committee indicates that problems addressed by these Resolutions appear to be caused by barriers to these market forces. Therefore, Mr Speaker, your Reference Committee recommends the adoption of the following Substitute Resolution in lieu of Resolutions No. 5 and 17:

**RESOLVED:** The House of Delegates hereby instructs the Board of Trustees to study and take actions necessary to insure that Oklahoma patients are equitably reimbursed by third party payors for services rendered by physicians and that free market forces are not restricted in the medical marketplace.

*Mr Speaker, I move adoption of this portion of the report.*

#### ITEM VI RESOLUTION NO. 16

Mr Speaker, your Reference Committee listened to specific discussion pertaining to Resolution No. 16. The Reference Committee is in total agreement with the intent of Resolution No. 16. However, considering the recent actions of Congress, the Reference Committee recommended Resolution No. 16 not be adopted.

*Mr Speaker, I move adoption of this portion of the report.*

#### ITEM VII REPORT OF THE FOUNDATION FOR PEER REVIEW

Mr Chairman, your Reference Committee heard extensive testimony on the proposal

from the Oklahoma Foundation for Peer Review to initiate a private review program for patients other than those covered by state and federal insurance programs.

The Committee wishes to commend Dr John McIntyre for his service as President of the Oklahoma Foundation for Peer Review and recognizes the significance and successful alternative to PSRO that is acceptable to Oklahoma patients, hospitals and physicians. The Committee recognizes that the OFPR program has become a model peer review program for the United States. The Foundation now proposes to extend their activities to private industry and insurers of health benefit programs. In addition, the OFPR requests the approval of a loan for development, marketing and implementation of its program.

The testimony was equally persuasive on both sides of the issue. Those favoring the plan feel that it would be advantageous to the Association and to patient care to form an alliance with industry for physician review of medical services. Those opposed feel that it is the continuation of a program likely to be phased out by government that was not supported, in fact, strongly opposed, by the majority of members of the Association. There was also expressed considerable concern about the cost of the program to the Association and the liability of its members who participated in its administration.

It is apparent to the Reference Committee that there is still considerable confusion about the private review proposal; however, it is also the opinion of the Committee that most members of the Association support *voluntary quality* peer review. It would be the opinion of your Reference Committee that the House of Delegates endorse this private review program to be studied and implemented by the Board of Trustees at its discretion, and that an advisory committee to the Board of Directors of the Foundation for Medical Care be formed, consisting of the past-presidents of OSMA in active practice in the State of Oklahoma.

Therefore, Mr Speaker, it is the recommendation of your Reference Committee that the report of the Oklahoma Foundation for Peer Review be adopted.

*Mr Speaker, I move adoption of this portion of the report.*

*Mr Speaker, your Reference Committee moves adoption of this report as a whole.*



Mr Speaker, as Chairman of this Reference Committee, I am indebted to the members of Reference Committee III. The workload consumed 5½ hours of their time to attempt to carry out the wishes of this House. I would like to thank them for their invaluable efforts on this report.

Lanny Trotter, MD, Stillwater, Chairman  
William O. Coleman, MD, Oklahoma City  
Carl Guild, MD, Bartlesville  
Claude Knight, MD, Wewoka  
Rollie Rhodes, MD, Tulsa  
Joe Stafford, MD, Tulsa  
C. P. Taylor, MD, Ada  
Staff—Lyle Kelsey

\*The paper on federal medical and health issues is scheduled for printing in a future issue of *The Journal of the Oklahoma State Medical Association*.

Report of the  
COUNCIL ON GOVERNMENTAL  
ACTIVITIES  
(APPROVED)

**INTRODUCTION:**

The Council on Governmental Activities is responsible for state and national legislative and regulatory activities of the Oklahoma State Medical Association. The Council itself reviews and attempts to influence national issues. The Council also functions with a State Legislative Committee that reviews and takes positions on medically related legislation introduced in the state legislature. The Council functions with a part-time staff person in Washington to monitor Congressional activities, as well as organize periodic visits to Washington by OSMA leadership. The State Legislative Committee has a full-time OSMA staff person assigned to assist in carrying out its administrative and lobbying activities.

**REVIEW OF ACTIVITIES:**

Federal issues were highlighted by the cost containment legislation, HR 2626, which was defeated by the House of Representatives. The House then substituted a voluntary cost containment package. The Council was very involved in lobbying the Oklahoma delegation against the cost containment measures and was successful in soliciting the opposition votes

from all of the Oklahoma members. The Council was also involved in other issues, such as national health insurance, which lost some enthusiasm during the second session of Congress, the budget reconciliation, including some omnibus Medicare and Medicaid legislation, competition and HMO bills. In total, 35 major pieces of legislation were reviewed and commented on with considerable success in obtaining support from our delegation. On the regulatory side, the Council was involved in opposing the proposed rules to establish personnel standards for clinical laboratories which participate in the Medicare program, which would have handicapped rural hospitals. The proposal was withdrawn by the Department of Health and Human Services in August of 1980. Other regulatory comments were made on: alpha feto protein regulations (under review); FTC proposals; medical reimbursement guidelines; and the overall HHS regulatory plan. A major project was undertaken by the Council at the direction of the Chairman to develop a position paper on various aspects of medical and health issues. The paper takes a look at the development of medicine in the United States and moves into the areas of cost containment and some misleading theories involved with health insurance and medical competition. (Attachment A.)

The Council continues to improve its communication with the Oklahoma delegation and presently improved access to the White House. The periodic trips to Washington continue to bring favorable results for improved legislative relations.

The State Legislative Committee continues to review numerous legislative bills that directly and indirectly impact on medicine. During the first of the 1981 legislative session, the OSMA Legislative Committee met seven times and discussed 33 separate pieces of legislation. (Attachment B.) Besides the regular OSMA *Legislative Update*, this year the Committee has also organized a separate group referred to as a "Special Legislative Action Group," made up of approximately 150 OSMA members (leadership and politically active members). This special group not only receives a summary of the legislative bills but also a copy of the actual legislation in order for them to discuss possible changes with their legislators.

The OSMA Auxiliary has taken a very active part in both the Council and State Legislative Committee by appointing members to each. All of the OSMA legislative mailings are



sent to the Auxiliary members. In conjunction with the OSMA Auxiliary, their "Day at the Legislature" was held on Thursday, February 19, 1981. The program was very well attended and received many favorable comments. (Program-Attachment C.)

In other legislative activities, the First Aid Station at the State Capitol continues to be a viable part of the Medical Association's involvement at the legislature. The response from physicians to participate in this program has been extremely successful. Starting in the summer of 1981, OSMA and AMCARE will conduct classes for a "first responder program" with all of the security guards at the Capitol. This will help improve the emergency care while the legislature is in session and during the interim.

#### RECOMMENDATIONS:

The Council will continue to work on its program and objectives projected through 1986, as endorsed by the 1980 House of Delegates meeting:

1. Change AMA policy to encourage state medical associations to participate directly in national legislative-regulatory activities;
2. Each year, allow the president-elect and chief executive officer of another state medical association to accompany OSMA officials on one Washington legislative communication trip;
3. Each year, permit three OSMA officials to attend a meeting of the Board of Trustees or comparable unit in other state medical associations to explain the OSMA program;
4. At each AMA meeting, publicize the intent and accomplishments of the OSMA programs;
5. Introduce in the AMA House of Delegates resolutions which may be required to implement OSMA objectives.

#### BUDGET REQUEST:

Washington Program	\$10,000.00
State Legislative Program	2,500.00
Council Objectives	6,000.00
Total	\$18,500.00

Respectfully submitted,  
Perry A. Lambird, MD, Chairman  
George H. Kamp, MD

Jerome M. Dilling, Jr., MD  
Mrs. J. B. Eskridge, III  
Joe C. Horton, MD  
William L. Hughes, MD  
Lanny F. Trotter, MD  
Orange M. Welborn, MD  
Ronald H. White, MD  
Charles D. Cook, MD  
Richard Boatsman, MD  
C. S. Lewis, Jr., MD  
Ed Calhoon, MD  
Mrs. Dale R. Butler

#### Report of the COUNCIL ON MEDICAL SERVICES (APPROVED AS AMENDED)

#### INTRODUCTION:

The Council has been charged with the duties of studying, making decisions and formulating activities with respect to the provisions of adequate medical care, including but not limited to the design of evaluation of all types of health care delivery systems, health planning, the financing of medical services, and its impact on the quality of patient care, the social aspects of health, internal peer-review mechanisms and the appraisal of all external programs which affect the cost or quality of medical care.

#### REVIEW OF ACTIVITIES:

*A. Health Planning* — Over the past several years health planning has been a priority item of this council and it will continue to be; however, it appears it will change drastically. If the Reagan Administration can push certain budget cuts through Congress, health planning as set out under P.L. 93-641 will be abolished. This is something that organized medicine has worked for since it was imposed in 1975. It has proven to be strictly regulatory and not cost effective.

The Council agrees with this plan of action but raised the question, what then? Good health planning is necessary if we are to contain costs effectively. The Council feels very strongly that the existing structure of a central health planning agency with regional units is adequate, as long as it is funded on a local basis utilizing local resources. The Council is on record as suggesting that OSMA take the lead in such a movement and has introduced a resolution of this nature for consideration.



The Council also believes that the Health Planning Advisory Committee, created primarily to monitor and act as a liaison on health planning matters can give organized medicine an advantage in assuming the leadership role in creating a new, effective health planning system in Oklahoma.

*B. Peer Review* — Over the past twelve months the Council on Medical Services, along with many other individuals, has debated the fate of peer review by OSMA. Many views were expressed from "no peer review" to "full fee review"; however, it was the general consensus that OSMA has in the past provided a respected service and it should be continued. This reinforces the action of the House of Delegates last May, when they instructed that peer review be continued under new guidelines formulated by the Council.

Because of uncertainty involved with the Federal Trade Commission's ruling, and we are still unclear about the appeal results, it was several months before the new guidelines (Attachment I) were developed.

The guidelines were approved by the Council and the Board of Trustees at their November meeting, with the only exception to the House's instructions being that *no* fee review for third party carriers be conducted.

*C. Liaison with Organized Nursing* — The ad hoc Committee on Independent Nurse Practitioners, which has been operational periodically for the past year and a half has been officially abolished by the president. However, its goals and those accomplishments which were made, namely the renewal of open communications between doctors and nurses, will be continued as a function of the Council. The most pressing issue in the medical/nursing arena is the shortage of primary care nurses. The Oklahoma Nurses Association has adopted the American Nurses Association's Master Plan for Nursing for the 1980's. There are many critical issues which we should be wary of, however. The most striking is their number one goal of making the baccalaureate degree the entry level into nursing by 1990. This will in no way increase the number of primary care nurses in our hospitals and institutions.

During a meeting of this council we heard a report that organized nursing doesn't care what medicine has to say about this plan. Because of past results, the Council believes and recommends that the OSMA would serve no

purpose in attacking the nursing plan, but rather an "end run" should be attempted with a strong offensive toward stressing those things which the plan ignores, namely that no one is addressing the deficiency of bedside nurses and that the OSMA should be willing to assist and support any group who seeks to increase the number of bedside nurses.

The whole problem of the nursing shortage, including the Nursing Plan, is a priority item which the Council will continue to monitor and work on through cooperation with other health professional organizations.

*D. Physician Placement* — Physician placement is still a vital concern of this Council. We are pleased to report that the placement program conducted by the Oklahoma Physician Manpower Training Commission on behalf of the OSMA is working well. Placement officers have been positioned on both the Oklahoma City and Tulsa campuses of the University of Oklahoma Medical School for close communication with OU graduates. The community match and loan and scholarship programs are working very successfully in contracting with students to go into rural practice upon completion of their training. The community assessments which are so important in undertaking the needs of Oklahoma towns and cities, are continuing to be completed so that soon we should have an overview of the medical needs for the entire state.

We are very pleased with our relationship with the PMTC, a program which has one of the highest ratings in the eyes of the Oklahoma Legislature.

*E. Ambulatory Surgery* — A year ago the Council reported that its now defunct ad hoc Committee on Obsolete Medical Procedures had been requested by Blue Cross and Blue Shield to approve a list of ambulatory surgical procedures. It was the suggestion of this Council, with approval by the House, that this list developed in California was not acceptable for Oklahoma and it was rejected. Recently BC/BS has approached the OSMA again with approving the same list, only this time in the name of cost containment. The Council once again studied the proposal and recommends that OSMA not approve the California list. However, the Council would encourage the OSMA to endorse ambulatory surgery whenever possible as a means of cost containment.

#### OBJECTIVES:

With federally funded health planning being



phased out, the OSMA is in a position to take the leadership role in developing a new, locally funded and operated health planning system. The Health Planning Advisory Committee, because of its expertise in this area, should be the nucleus of such a plan.

The Council will continue to work with allied health professional organizations, especially nursing. The Council is concerned with several portions of the Nursing Master Plan for the 80's, but we do not feel the OSMA should verbally oppose or attack it. The Council will work toward expressing OSMA's beliefs in nursing education on all levels and the increase in the numbers of primary care nurses.

New guidelines for peer review have been developed which would allow review of cases dealing with medical appropriateness and/or quality of medical care. The guidelines do restrict fee review for third party carriers. The Council is prepared to proceed with peer review according to the guidelines as approved by this House of Delegates.

The Council will continue to work with the Physician Manpower Training Commission in recruiting and placing qualified physicians in the medically underserved areas of Oklahoma. We will also support PMTC efforts to retain Oklahoma Medical school graduates in Oklahoma.

#### RECOMMENDATIONS:

1. That health planning continue to be a priority for this Council.
2. That the Council begin conducting peer review under the newly developed guidelines.
3. That the Council continue in its liaison with allied health professional organizations.
4. That OSMA support nursing education on all levels and support the increase in numbers of primary care nurses.
5. That the OSMA continue its support of the Physician Manpower Training Commission and its physician placement programs.

#### BUDGET REQUEST:

Health Planning	\$1,000
Council Objectives	1,500
Total	<hr/> \$2,500

Respectfully Submitted,  
 Richard A. Liebendorfer, MD, Chairman  
 Donald C. Barney, MD  
 Jack Barney, MD  
 John A. Blaschke, MD  
 George M. Brown, MD  
 A. H. Bungardt, MD  
 Ted Clemens, Jr., MD  
 Donald L. Cooper, MD  
 Sam L. Earnest, MD  
 James D. Funnell, MD  
 Maurice C. Gephardt, MD  
 Roger V. Haglund, MD  
 Charles K. Harmon, MD  
 Richard Harper, MD  
 Bartis Kent, MD  
 Clair Liebrand, MD  
 Edward Moroney, MD  
 Philip W. Perryman, Jr., MD  
 Galen P. Robbins, MD  
 Jane Self, MD  
 Orange Welborn, MD  
 Kenneth E. Whinery, MD

#### Oklahoma State Medical Association PEER REVIEW FUNCTION (APPROVED)

#### REVISED GUIDELINES:

The Oklahoma State Medical Association, through its Council on Medical Services, will review cases involving all aspects of appropriateness and/or quality of medical care rendered by medical doctors in Oklahoma who are members of OSMA or have their liability coverage through the Association sponsored professional liability insurance program and thereby agree to abide by the policies and decisions of OSMA.

Cases may be submitted to the Association by any appropriate person or body such as the patient, third party carrier or the physician. The Oklahoma State Medical Association does not establish physician fees.

#### REVIEW PROCEDURES:

The following conditions must be met prior to a case being submitted to the Association:

Evidence that attempts have been made to resolve the dispute prior to submission for review;

The patient (if applicable) and the physician (in every case) should be advised in writing by the third party carrier that there will be an administrative delay in settlement of a health insurance claim. The letter to the patient should state that a review is in process.

Complete and appropriate documentation to support the allegations must accompany the request for review.

The Association will endeavor to see that all cases received are handled expeditiously so that its findings may be rendered to all involved parties within sixty (60) days.

#### REVIEW PROCESS:

When a case is submitted to the Association, the physician or physicians involved shall be notified that the case is pending for review and shall be permitted an opportunity to present in writing or personally, any evidence or comment thought to be of benefit in resolving the case.

The Council on Medical Services, upon arriving at a decision, shall transmit in writing its recommendation to the physician or physicians involved, and copies of its decision shall be forwarded to the person or parties requesting the review.

The decision of the Council is final, but any involved party shall have the right of appeal to OSMA's Board of Trustees.

#### DISCIPLINARY JURISDICTION:

The Council on Medical Services shall not function as a disciplinary body, but does have an obligation to file charges with the Association's Board of Trustees, grievance committee, or the Board of Censors of the appropriate county medical society, when warranted by the circumstances of a particular case involving the conduct of an association member.

The OSMA and all of its Councils and Committees are obligated to abide by the principles of medical ethics as adopted by the House of Delegates.

Report of the  
OKLAHOMA MEDICAL POLITICAL  
ACTION COMMITTEE  
(OMPAC)  
(APPROVED)

#### INTRODUCTION:

The Oklahoma Medical Political Action Committee is a voluntary, unincorporated entity made up of individual physicians and others interested in helping those political candidates that share a similar political

philosophy to get elected to office. OMPAC is an independent and autonomous organization managed by a Board of Directors. The Board of Directors has control over the policies and activities of the Committee and serve without compensation. The OMPAC Board meets annually to conduct business of the Committee and will usually meet several times during an election year to distribute campaign funds to candidates.

#### REVIEW OF ACTIVITIES:

The OMPAC Board of Directors met three times during 1980, to make decisions on political contributions during the 1980 elections. The decisions were based on a combination of information obtained by the individual Board members, as well as compiled information from two OMPAC membership surveys. The expenditures of OMPAC and requested AMPAC funds are as follows:

OMPAC State Legislative Contributions	\$10,900
OMPAC Federal Legislative Contributions	12,500
* AMPAC Federal Legislative Contributions	9,500
Total OMPAC/AMPAC Contributions	\$32,900

\* AMPAC can only contribute to federal legislative races

OMPAC had what they consider a very successful contribution ratio with 75% of the state legislative candidates supported by OMPAC being elected. 91% of the federal candidates supported by OMPAC/AMPAC were elected.

OMPAC membership, on the other hand, has not enjoyed the same kind of success. Over the last five years, the OMPAC membership has actually decreased, even though the amount of total funds available for contributions has remained about constant, due to some shift from regular members to sustaining members, as well as a dues increase. The 1980 membership was right at 750 OMPAC members, and using a figure of 3,200 members of OSMA, the ratio works out to be about 23% of the OSMA membership belongs to OMPAC.

#### RECOMMENDATIONS:

1. Increase membership.
2. Update OMPAC Constitution and Bylaws to reflect the requirements of the Federal Election Committee (FEC)

OKLAHOMA FOUNDATION FOR  
PEER REVIEW, INC.  
Private Review Proposal  
(APPROVED AS AMENDED)

In early 1971, at the direction of the OSMA House of Delegates, the Oklahoma Foundation



for Peer Review was formed under the laws of the State of Oklahoma. Its purpose was to provide a professionally controlled vehicle to assume PSRO responsibilities if, and when, that became necessary.

In late 1974, HEW issued new utilization review regulations that, in effect, imposed a PSRO-like review system on the internal operations of all hospitals in non-PSRO areas, but without the computer capabilities of a true PSRO.

To assist Oklahoma's hospitals in interpreting and implementing the new regulations, a task force was established in late 1974, including representatives from the OSMA, Oklahoma Osteopathic Association, Hospital Association, the various Medicare intermediaries, the State Welfare Department, and the Foundation. This task force subsequently developed the Oklahoma Utilization Review System, known as OURS. The program was funded by HEW as a demonstration project and, with the concurrence of the developing organizations, was supervised by the Foundation.

Concurrently with the development of OURS and its supervision, the Foundation was also involved in PSRO planning. When it became obvious that OURS was going to work, the Foundation informed HEW that it was its intention, following the completion of the demonstration project, to offer OURS as Oklahoma's PSRO plan.

After many modifications to meet the peculiarities of PSRO legal requirements, the plan was accepted by HEW and the Foundation was designated a PSRO on April 1, 1978.

During its relatively brief history, the Foundation has had several noteworthy accomplishments:

1. The Foundation's operation of the OURS Plan assisted all Oklahoma hospitals, especially those rural areas, in meeting Medicare and Medicaid utilization review requirements.
2. According to the General Accounting Office of the United States Congress, the model program may have saved between \$1.5 and \$3.1 million (between \$1.67 and \$3.64 returned for every \$1.00 spent) within a 15 month period.
3. The Foundation's conversion of the OURS Plan into a PSRO Program avoided nearly all of the aggravation encountered in other PSRO programs, but

at the same time met all of the federal legal requirements to guarantee payment of Medicare and Medicaid claims to Oklahoma hospitals.

4. The Foundation's operation has given Oklahoma physicians control over the most extensive patient care data system in the state.
5. The Foundation's operation of the OURS Program and later the PSRO has afforded Oklahoma physicians a utilization review system that has avoided arbitrary decisions by federal and state claims processing personnel.

The success of peer or utilization review to control the cost of medical care has caught the attention and interest of private industry and commercial insurers. Private industry has been searching for ways to control the rising cost of health care, which has significantly increased their insurance costs. The availability of a physician controlled organization dedicated to cost containment, but at the same time concerned about the quality of medical care, to monitor utilization and hold down costs is appealing to the private sector.

The Foundation's Board of Directors, after being indirectly approached by several insurance companies and directly by at least one large industry, investigated the need to offer the OFPR's services in the area of utilization review to industry and commercial insurance companies.

At the same time, however, the directors felt that it was essential that any type of patient care data base should be under the control of physicians so that it might be utilized to combat continuing political assaults on medicine. In addition, physicians remain concerned that insurance companies appear to be making arbitrary judgments regarding medical necessity, a concern that could be allayed by the use of a physician sponsored utilization review plan.

With these concerns in mind, the Foundation's Board of Directors appointed a special committee to study and prepare a draft plan for private sector review. The plan developed follows closely the original OURS Program with only minor adjustments.

Although accepted by the Board of Directors, the Foundation feels that it is essential that its review plan should have the concurrence and sponsorship of both the Oklahoma State Medical Association and the Oklahoma Osteopathic



Association. The plan is hereby advanced to the two organizations for their comments and recommendations.

While the plan closely parallels the OURS Program, there is one major modification suggested: the formation of a subsidiary organization, the Oklahoma Foundation for Medical Care. It is felt that the creation of such a separate organization would better protect the confidentiality of private sector data from possible incursions by the federal government. The Foundation is presently subject to many federal regulations regarding its Medicare and Medicaid review data and wants no such regulatory concerns to exist with regard to private sector data.

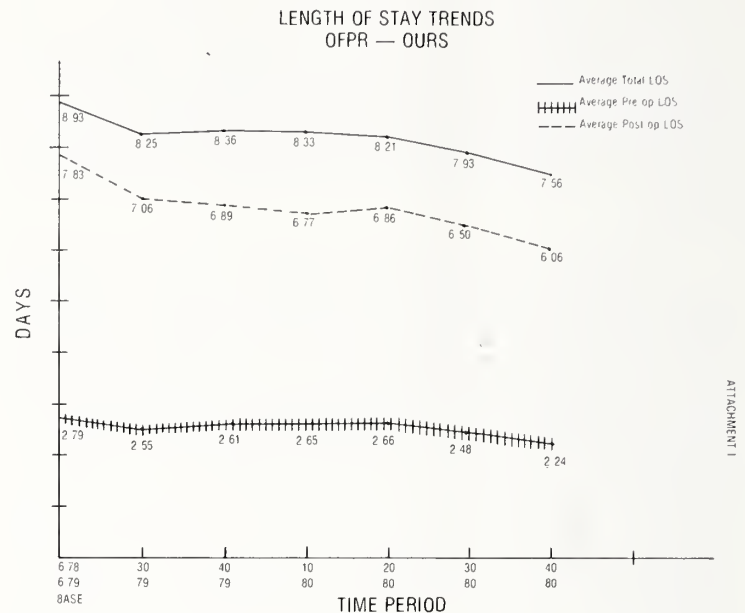
Another major reason for a separate organization is the unnecessary and costly administrative rules imposed on the OFPR through the federal government. A separate organization would be generally free to operate under normal business policies and procedures.

In anticipation that private sector representatives in both Tulsa and Oklahoma City will soon approach the physician community about the availability of private review, the Foundation's Board of Directors recommends the adoption of its Private Sector Review Plan by the OSMA and OOA. The program appears to be an excellent aid to forming solid alliances between physicians and the business community.

Finally, while the current political trends in the country appear to be away from huge federally funded health care programs, the national politicians promoting such programs have not given up completely. This type of separate organization will afford Oklahoma physicians an opportunity to investigate other forms of health care payment mechanisms which could serve individual fee-for-service and group practice physicians. Proposals such as the Consumer's Health Investment Plan, known as CHIP, being advanced by the Louisiana State Medical Society, could be reviewed, developed and tested or demonstrated through the separate organization.

The Board of Directors of the Oklahoma Foundation for Peer Review urge the Oklahoma State Medical Association and the Oklahoma Osteopathic Association to give serious consideration to the draft plan for private sector review. Comments and recommendations

are encouraged and appreciated. Copies of the draft plan will be available when this is considered.



**RESOLUTION: 1**  
**(APPROVED)**

INTRODUCED BY: Oklahoma County Medical Society  
SUBJECT: Patient Referrals  
REFERRED TO: Reference Committee III

WHEREAS, It has been a tradition of medicine that physicians, when referring patients for additional medical care, refer to specific physicians; and

WHEREAS, Direct referrals insure that patients receive personal medical attention without undue delay and confusion; and

WHEREAS, Direct referrals give the patient a choice of physicians and location of treatment; and

WHEREAS, Direct referrals permit the physician to whom the patient is referred the opportunity to accept or reject the patient and to assist in making decisions as to the optimum location of care; and

WHEREAS, The practice of referring a patient from a hospital emergency room to another hospital emergency room is becoming widespread; and

WHEREAS, Indirect referrals are not in the best interest of quality medical care; now, therefore be it

**RESOLVED**, That the House of Delegates reaffirms its position that it is in the best interest of quality medical care for physicians to refer to physicians.



RESOLUTION: 2  
(APPROVED AS AMENDED)

INTRODUCED BY: Council on Medical Services

SUBJECT: Health Planning

REFERRED TO: Reference Committee III

WHEREAS, Health planning as it has been conducted under the existing federal programs, PL 93-641 and PL 96-79, has evolved into a federal regulatory program that has anti-competitive effects and has not been proven cost effective; and

WHEREAS, The agencies responsible for the implementation of the health planning policies, the health systems agencies, may be in the process of being totally dissolved; and

WHEREAS, Health planning is of vital interest to all who are concerned with cost effective health care; therefore be it

*RESOLVED*, That the Council on Medical Services of the Oklahoma State Medical Association urges the medical profession to accept responsibility and assume a position of leadership; and be it further

*RESOLVED*, That the Oklahoma State Medical Association further develop a plan for voluntary, locally-based health planning, designed to address local needs with local resources as an alternative to PL 93-641 and PL 96-79; and be it further

*RESOLVED*, That the Oklahoma State Medical Association hereby encourages the House of Delegates of the American Medical Association to assist similar efforts in other states.

RESOLUTION: 3  
(APPROVED)

INTRODUCED BY: Council on Medical Services

SUBJECT: Support of Nurse Education at all Levels

REFERRED TO: Reference Committee III

WHEREAS, The American Nurses Association and the Oklahoma Nurses Association have proposed that by the year 1990 only graduates from baccalaureate degree nursing programs will be recognized for entry into professional nursing; and

WHEREAS, Organized medicine has in the past supported the diploma granting nursing schools, and, has, in fact, urged more clinical experience as opposed to theoretical teaching; and

WHEREAS, No single health professional organization is adequately addressing itself to the critical deficiency of bedside nurses, therefore be it

*RESOLVED*, That the Oklahoma State Medical Association make available resources to assist any recognized group in providing more, qualified bedside nurses; and be it further

*RESOLVED*, That the Oklahoma State Medical Association support all levels of nursing education as being essential to meeting the health needs of Oklahoma.

RESOLUTION: 5  
(REJECTED FOR SUBSTITUTE)

INTRODUCED BY: Comanche-Cotton-Tillman County Medical Society

SUBJECT: Geographic Fee Differentials

REFERRED TO: Reference Committee III

WHEREAS, It is currently the policy of many third party payors to reimburse for physicians' services on the basis of geographic or socioeconomic areas; and

WHEREAS, Such a reimbursement system unfairly discriminates against physicians who historically charge less than prevailing fees; and

WHEREAS, Geographic fee differentials are a deterrent to recruiting physicians to rural and non-metropolitan areas; and

WHEREAS, Inflation and changing economic times have essentially eliminated any cost of business differences between various areas of the state; and

WHEREAS, A medical service rendered by equally trained and competent physicians in different parts of the state has equal value; now therefore be it

*RESOLVED*, That the House of Delegates hereby instructs the Board of Trustees to take whatever action is necessary to encourage third party payors to eliminate the use of geographic or socioeconomic areas in calculating physician reimbursement.

RESOLUTION: 8  
(APPROVED)

INTRODUCED BY: The Oklahoma Academy of Family Physicians

SUBJECT: PSRO & HSA

REFERRED TO: Reference Committee III

WHEREAS, At its Interim meeting in December, 1980, the American Medical Association

tion did pass a resolution opposing the functioning of and continued funding of Professional Standard Review Organization (PSRO) and Health Systems Agency (HSA); and

WHEREAS, Both of these governmental sponsored and supported programs are detrimental to free enterprise and medical care as our citizenry has benefited from in the past; and

WHEREAS, In the interest of economy and the recognized rapidly expanding bureaucratic expensive phases of these programs at taxpayers' expense they should be discontinued; and

WHEREAS, These programs are so confusing and increasingly complex as to effect the rendering of good medical care; therefore be it

*RESOLVED*, That the Oklahoma State Medical Association support in full the resolution passed at the AMA Interim meeting opposing these two programs.

RESOLUTION: 12  
(*REJECTED*)

INTRODUCED BY: Tulsa County Medical Society Board of Directors

SUBJECT: Development of Three-Year Programs of Nursing Education

REFERRED TO: Reference Committee III

WHEREAS, a serious shortage of graduate registered nurses in Oklahoma and elsewhere throughout the nation is impairing the quality of patient care in hospitals and institutions; and

WHEREAS, This shortage is centered in the supply of graduate registered nurses engaged in direct clinical care of the individual patient; and

WHEREAS, This shortage has worsened through an unwarranted emphasis upon baccalaureate degree programs of nursing education whose costs and time and educational requirements have discouraged many desirable persons from entering the field of nursing; now, therefore be it

*RESOLVED*, That Oklahoma State Medical Association take an aggressive and continuing role of leadership in significant efforts to develop and reinstitute three-year programs of clinical nursing education in schools of nursing in the State of Oklahoma; and be it further

*RESOLVED*, That Oklahoma State Medical

Association, as part of this project, shall investigate and develop methods of long-range financing for schools which emphasize the three-year program of clinical nursing education; and, be it further

*RESOLVED*, That Oklahoma State Medical Association seek the active cooperation and participation of Oklahoma State Nurses Association, Oklahoma State Hospital Association, and other organizations, agencies and educational institutions in the effective implementation of this program.

RESOLUTION: 13  
(*REJECTED*)

INTRODUCED BY: Joseph L. McDonald, MD  
SUBJECT: Endorsement of Outpatient Surgical Care

REFERRED TO: Reference Committee III

WHEREAS, Money available for health care is limited; and

WHEREAS, Approximately 40 percent of the health care dollar is spent on hospitalization; and

WHEREAS, It is appropriate to decrease hospitalization costs when possible; therefore be it

*RESOLVED*, That the Oklahoma State Medical Association endorse to its members the full utilization of outpatient surgical care of patients on appropriate procedures and under the care of the attending physician.

RESOLUTION: 14  
(*APPROVED*)

INTRODUCED BY: Council on Medical Services

SUBJECT: Support for Patient Care in the Least Expensive Setting

REFERRED TO: Reference Committee III

WHEREAS, Physicians and the Oklahoma State Medical Association are dedicated to the delivery of the highest quality of medical and surgical care possible to the citizens of Oklahoma; and

WHEREAS, Physicians and the Oklahoma State Medical Association are equally determined to provide this quality of medical and surgical care in the most cost effective method; and

WHEREAS, The physician's office is the safest, most comfortable, and least expensive setting outside of the hospital; and



WHEREAS, The American Medical Association is on record in support of as much medical and surgical care being rendered in the physician's office as can safely and economically be provided; therefore be it

*RESOLVED*, That the Oklahoma State Medical Association support the concept of cost effectiveness and cost containment by encouraging that medical and surgical care be rendered in the safest and most economical setting possible; and be it further

*RESOLVED*, That the Oklahoma State Medical Association encourage insurance companies and fiscal intermediaries to reimburse the provider not only for professional services but also for those costs such as surgical kits and other appropriate supplies utilized in this setting.

RESOLUTION: 15  
(*APPROVED*)

INTRODUCED BY: Council on Planning and Development

SUBJECT: Nursing Shortage

REFERRED TO: Reference Committee III

WHEREAS, There now exists in Oklahoma a critical shortage of nurses qualified to care for sick patients; and

WHEREAS, Many of our qualified nurses are graduates of programs that do not offer a baccalaureate degree; and

WHEREAS, The medical care system in Oklahoma needs LPN's, diploma nurses, associate degree nurses and baccalaureate degree nurses; and

WHEREAS, The Oklahoma Nurses Association State Master Plan for Nursing would require a baccalaureate degree as a condition of eligibility for taking the RN examinations in 1990 and beyond; and

WHEREAS, This requirement will aggravate the existing shortage of nurses and diminish the importance of other nursing programs; now, therefore be it

*RESOLVED*, That the House of Delegates of the Oklahoma State Medical Association respectfully requests the Oklahoma Nurses Association to repeal from its State Master Plan for Nursing the goal that would require a baccalaureate degree as the minimal educational requirement for entry into professional nursing practice after 1990.

RESOLUTION: 16  
(*REJECTED*)

INTRODUCED BY: Council on Planning and Development

SUBJECT: President Reagan's Economic Program

REFERRED TO: Reference Committee III

WHEREAS, The growth of the federal government, increased deficit spending and excessive taxation have led the United States to the brink of economic calamity; and

WHEREAS, The American people have expressed their will, in the November 1980 elections, to have the scope and costs of government vastly reduced; and

WHEREAS, President Reagan has proposed a comprehensive program to reduce the growth of government spending and the proliferation of federal regulations, coupled with individual and business tax reductions, and

WHEREAS, Immediate action by the Congress is necessary to deal with this situation; therefore, be it

*RESOLVED*, That the Oklahoma State Medical Association endorses President Reagan's economic program with the exception that we do not feel that the competitive bidding of medical services and devices is in the best interest of quality patient care, and be it further

*RESOLVED*, That the Oklahoma State Medical Association urges immediate Congressional approval of the President's economic program, with the exception noted above.

RESOLUTION: 17  
(*REJECTED FOR SUBSTITUTE*)

INTRODUCED BY: The Oklahoma Academy of Family Physicians

SUBJECT: Resolution Opposing Fee Discrimination of Similar Services by Different Medical Disciplines

REFERRED TO: Reference Committee III

WHEREAS, There is a fee differential in Medicare and Medicaid payments based on the existing formula used; and

WHEREAS, The formula is so designed as to cause discrimination of similar services by members of different medical disciplines; and

WHEREAS, Those physicians in family/general practice of medicine are gener-

ally those discriminated against in the rendering of identical services; therefore be it

**RESOLVED**, That the Oklahoma State Medical Association House of Delegates oppose this discriminatory practice and petition whatever organization and/or agencies that can effectively amend the formula to avoid any further discrimination of payment for similar services.

**RESOLUTION: 19**  
**(APPROVED)**

**INTRODUCED BY:** Council on Planning and Development

**SUBJECT:** Repeal of PL 93-641 and PL 96-79

**REFERRED TO:** Reference Committee III

WHEREAS, The National Health Planning Act (PL 93-641) and the Health Planning and Resources Development Amendments of 1979 (PL 96-79) are contradictory to the free enterprise system on which this nation was founded; and

WHEREAS, Federally funded health planning efforts nationwide have proven to be ineffective; and

WHEREAS, Effective health planning can best be accomplished at the local level; therefore be it

**RESOLVED**, That the House of Delegates of the Oklahoma State Medical Association hereby endorses the position of the American Medical Association which calls for immediate cessation of funding for both the National Health Planning Act and the Health Planning and Resources Development Amendments; and be it further

**RESOLVED**, That the OSMA House of Delegates encourages that legislation be introduced into the 97th Congress to repeal both acts; and be it further

**RESOLVED**, That the OSMA House of Delegates pledges its full support and cooperation to the AMA in its efforts to repeal these acts.

**RESOLUTION: 20**  
**(APPROVED)**

**INTRODUCED BY:** Council on Planning and Development

**SUBJECT:** Elimination of PSRO's

**REFERRED TO:** Reference Committee III

WHEREAS, Professional Standards Review Organizations were established to ensure quality and promote cost effectiveness; and

WHEREAS, The country's experiment with PSRO's has shown them to be ineffective in terms of promoting cost effectiveness; and

WHEREAS, Americans continue to enjoy the highest quality medical care anywhere in the world; and

WHEREAS, Both quality and cost effectiveness can best be addressed on the local level; therefore be it

**RESOLVED**, That the House of Delegates of the Oklahoma State Medical Association hereby endorses the position of the American Medical Association which calls for directed efforts to ensure that care provided to patients is of high quality, appropriate duration, and rendered in appropriate setting at a reasonable cost; and be it further

**RESOLVED**, That the OSMA House of Delegates hereby endorses the AMA's recommendation that all government directed peer review programs be eliminated in favor of local efforts.

**Report of**  
**REFERENCE COMMITTEE NO. IV**

Presented by: John Blaschke, MD, Oklahoma City

Mr Speaker and Members of the House of Delegates, Reference Committee No. IV has carefully considered the items which were referred to it and submit the following report:

**ITEM I. REPORT OF THE COUNCIL ON MEDICAL EDUCATION**

Mr Speaker, your Reference Committee carefully examined the report of the Council on Medical Education and wishes to commend the Council on its work.

The Committee recommends that the House of Delegates endorse the position paper of the Oklahoma Physician Manpower Training Commission,\* which was physically misplaced in the handbook but discussed in the Council report. The Committee recommends that Section C of the Council report be amended to include a statement of support for the retention of the Tulsa Branch of the University of Oklahoma College of Medicine as an integral part of medical education in Oklahoma.



The Reference Committee recommends that the report of the Council on Medical Education be approved as amended.

*Mr Speaker, I move adoption of this portion of the report.*

## ITEM II. REPORT OF THE COUNCIL ON MEMBER SERVICES

Mr Speaker, your Reference Committee considered the report of the Council on Member Services and wishes to commend the Council for its programs. We would also like to extend a special commendation to C. Alton Brown, MD, for his long and dedicated service as Chairman of the Council on Member Services.

The Reference Committee recommends that the report of the Council on Member Services be approved.

*Mr Speaker, I move adoption of this portion of the report.*

## ITEM III. REPORT OF THE PHYSICIAN LIABILITY INSURANCE COMPANY (PLICO)

Mr Speaker, your Reference Committee considered the 1980 Operations Report of the Physicians Liability Insurance Company.\*\*

The Reference Committee recommends that the report of the Physicians Liability Insurance Company be approved.

*Mr. Speaker, I move adoption of this portion of the report.*

## ITEM IV. RESOLUTION NO. 7 EQUITABLE LIABILITY INSURANCE PREMIUMS

Mr Speaker, your Reference Committee examined Resolution No. 7 and recommends that it be approved.

*Mr Speaker, I move adoption of this portion of the report.*

## ITEM V. RESOLUTION NO. 11 STUDY OF PHYSICIAN POPULATION

Mr Speaker, your Reference Committee heard considerable testimony concerning Resolution No. 11 and recommends that substitute Resolution No. 11 be adopted in lieu of Resolution No. 11:

WHEREAS, the primary objective of the Oklahoma State Medical Association is to insure and provide top quality, cost effective

medical care to the people of the State of Oklahoma; and

WHEREAS, in the past five years, 2,209 medical licenses have been issued and only 22% of those being University of Oklahoma graduates; now, therefore, be it

**RESOLVED**, that the Oklahoma State Medical Association conduct an in-depth and intensive study of the methods by which the State of Oklahoma can insure that graduates of non-US and non-Canadian medical schools meet the same high standards as do graduates of Oklahoma state-supported schools as a condition of licensure in the State of Oklahoma, and urgently recommend legislation to update the Oklahoma Medical Practice Act.

*Mr Speaker, I move adoption of this portion of the report as amended.*

*Mr Speaker, your Reference Committee moves adoption of this report as a whole.*

Mr Speaker, as Chairman of this Reference Committee, I would like to thank the Committee members and the staff for their cooperation and their work on this report.

Respectfully submitted,  
John A. Blaschke, MD, Chairman  
John Alexander, MD  
George Brown, MD  
Harriet Coussons, MD  
John W. Drake, MD  
Hal Vorse, MD  
Boyd Shook, MD  
Staff—Rick Ernest

\*Copies of the PMTC position paper are available from the Physician Manpower Training Commission.

\*\*Copies of the 1980 Operative Report of the Physicians Liability Insurance Company have been mailed to all OSMA members.

## Report of the COUNCIL ON MEDICAL EDUCATION (APPROVED)

### INTRODUCTION:

The Council shall study and make recommendations related to all matters of maintaining or improving the level of competency of physicians in Oklahoma, including but not limited to maintaining liaison with the medical education colleges in Oklahoma, to maintaining liaison with other health professions or

occupations, to conducting continuing medical education courses for association members, to the accreditation of medical education programs in Oklahoma. It will also monitor continuing medical education standards as they may be required by association policy. Financial aid to education shall also be among the duties of the Council.

#### REVIEW OF ACTIVITIES:

*A. Continuing Medical Education Accreditation Program* — One year ago this House approved a resolution that rescinded the requirement that all OSMA members have an active Physician Recognition Award by January 1, 1981.

There was some concern that by eliminating the CME requirement the accredited hospital based CME programs would suffer. This has not been the case. In fact, whether it is due to habit or what, the attendance has continued to be very good and the program directors have notified us that there are no planned cutbacks.

We have not had any new applications for surveys, but we have conducted three resurveys over the past year, with three more scheduled later this year. Those institutions approved to conduct Category I CME programs in Oklahoma are:

Hillcrest Medical Center, Tulsa  
St John Medical Center, Tulsa  
St Francis Hospital, Tulsa  
St Anthony Hospital, Oklahoma City  
South Community Hospital, Oklahoma City  
Baptist Medical Center, Oklahoma City  
Presbyterian Hospital, Oklahoma City  
Medical Products Systems, Inc. (teleconference network), Bartlesville

Since almost every accredited institution is now on a four-year resurvey schedule, the Council felt it necessary to have a yearly reporting mechanism in order to maintain some sort of surveillance over their activities. This past year we received reports from every institution and will continue to monitor in this manner in the future.

*B. Medical School Endowment* — The goal of this program was to raise \$750,000 to endow a "CHAIR" in continuing medical education at the OU Health Sciences Center. The plans called for each OSMA member, on a voluntary basis, to contribute \$600. The money was to be contributed all at once or through annual gifts of \$200 over three years.

Since the three-year collection period has concluded, approximately \$110,000 was raised, and the prospects of ever raising the total amount seems far-fetched, the Council feels that an alternate use for the money should be identified. But, before the use of the funds is reidentified, the Council voted to create a subcommittee to study possible alternatives for the fund. Once a list has been compiled, with the aid of OUHSC officials, those members who donated will be polled for their decision of how the money is to be used. The Council will tally the responses and identify the proper use of the funds for the Board of Trustees' final approval.

*C. Graduate Medical Education National Advisory Committee Report (GMENAC)* — The GMENAC Report was issued to the Secretary of Health and Human Services on September 30, 1980, and identified several problems in the supply and distribution of the nation's physicians and suggested changes in the way physicians are trained. GMENAC forecasts a surplus of 70,000 physicians by 1990 and recommended a ten percent cut in entering medical school classes. This report, as you can imagine, has created much furor throughout the land, both pro and con.

Rather than make a statement for or against the GMENAC report the Council opted to endorse a more local position paper written by the Oklahoma Physician Manpower Training Commission. The PMTC's paper contends that all measures taken thus far to provide better medical care for Oklahomans should be continued and that we should not, in the next five years, consider a reduction in enrollment in our state supported medical schools. The paper goes on to propose that in five years, 1986, Oklahoma's physician manpower needs should be reevaluated. A copy of this report is attached.

*D. Financial Aid to Education Loan and Scholarship Fund* — For almost the past twenty years \$5.00 of each full dues paying member's dues has been going into a fund for medical education loans and scholarships. For the past five years the fund has not been touched. This is greatly due to state money readily available to students through the Oklahoma Physician Manpower Training Commission. To date there is approximately \$85,000 in the fund. In an attempt to place this money in a position to be used in another similar avenue, the Council has recommended that the House of Delegates utilize the fund in



whatever manner they see fit. It is understood that a recommendation is forthcoming for the use of the funds.

E. *OSMA Liaison with Medical School Officials* – Over the past year representatives of the Council and other OSMA officials have met on two occasions with the leadership of the University of Oklahoma Medical School for the purpose of identifying and planning ways we can mutually benefit from a strong medical education center. The Council and OSMA is dedicated to its support of the OU Medical School, both in Oklahoma City and Tulsa, and will continue to work and maintain open relations for continued progress in assuring the graduation and retention of the best physicians possible.

#### RECOMMENDATIONS:

1. That the OSMA continue to actively survey and resurvey institutions for continuing medical education accreditation.
2. That the OSMA continue in its support and open communications with the OUHSC.
3. That a sub-committee be designated to study alternate uses of the money raised by the medical school CME Endowment fund and report its findings to the Board of Trustees.
4. That the House use its authority in utilizing the funds of the Financial Aid to Medical Education Loan and Scholarship Program as it sees fit.
5. That the Council be allowed to send representatives to local, state and national meetings when appropriate.

#### BUDGET REQUEST:

Accreditation Surveys	\$1,000
Educational Requirements	2,000
Total	\$3,000

Respectfully Submitted

Victor L. Robards, Jr., MD, Chairman

John Alexander, MD  
Michael H. Berkey, MD  
Irwin H. Brown, MD  
Wallace Byrd, MD  
Robert J. Capehart, MD  
John W. Drake, MD  
Sydney Garrett, MD

Bernard E. Guenther, MD  
J. M. Guernsey, MD  
Norman Haug, MD  
Sam C. Jack, MD  
Thomas Lynn, Jr., MD  
Harris J. Moreland, MD  
Don G. Nelson, MD  
Lenard A. Poplin, MD  
James R. Priest, MD  
Fred Ray, MD  
William R. Smith, MD  
Lowell N. Templer, MD  
Edward Tomsovic, MD  
Hal B. Vorse, MD  
Kenneth W. Whittington, MD

#### Report of the COUNCIL ON MEMBERS SERVICES (APPROVED)

#### INTRODUCTION:

The Council is responsible for monitoring and developing programs that offer direct benefits as a result of Association membership. These include a variety of sponsored insurance programs — including the successful professional liability coverage through PLICO, group life, disability income, office overhead and others. In addition, the Council offers Association services to County Medical Societies, the OSMA Auxiliary and to resident and medical student organizations. The Council conducts membership campaigns, offers sponsored travel programs, and attempts to ascertain on a regular basis the needs and desires of OSMA members.

#### REVIEW OF ACTIVITIES:

PLICO — Physicians Liability Insurance Company completed its first year of operation in December 1980. Claims reports, loss information, actuarial studies and financial reports all indicate that PLICO's first year of operation was extremely successful. Total capital surplus for the company after collection of the second year assessment is in excess of \$2,200,000. The support by OSMA members has literally been fantastic.

As instructed by the House of Delegates, and in keeping with plans adopted by the OSMA leadership last year, the Council membership will be restructured to eliminate many of the overlaps that presently exist between the Council and PLICO's Board of Directors. The Chairman of the Council, who also serves as



the President of PLICO, will step down from his position on the Council, as will other members of the PLICO board, thereby creating a more distinct definition between PLICO and the Council. The Council will continue to operate as the Underwriting Agent for PLICO, whose Board will not make underwriting decisions without advice and recommendation from the Council. Insurance appeals will continue to be reviewed by the OSMA Board of Trustees, who retain final authority over actions taken against OSMA members. (PLICO's Annual Report and the PLICO President's Comments made at the Annual Shareholders meeting will be available.)

Other OSMA sponsored insurance programs include the *Group Life Program* with Massachusetts Mutual. Coverage revisions made last year plus a 30% dividend granted by the company have resulted in increased interest plus new enrollments. There are currently 186 physicians enrolled in the program, compared to 181 last year. The House of Delegates authorized the Council to change the program to another carrier, providing comparable coverage could be secured at competitive rates, with the additional assurance that all physicians now enrolled would be guaranteed equal coverage with the new carrier. The Council received bids that could meet all the conditions, but when the 30% dividend was applied, the existing company had the lowest rates. The Council wishes to retain the authority to change the program under the same conditions as specified last year.

*The Disability Income Policy* written by the Continental Insurance Companies continues to be popular. Four hundred twenty-three OSMA members are enrolled in the program that offers up to \$500 in weekly benefits in the event of a disabling accident or illness. The Continental Insurance Companies also provide coverage for the OSMA's sponsored *Full Time Accident* and *Hospital Indemnity* insurance plans. The Full Time Accident policy offers up to \$100,000 of insurance in the event of accidental death or dismemberment. Three hundred twenty-one members have purchased this policy. The Hospital Indemnity plan provides up to \$700 in weekly benefits in the event of hospitalization. There are 203 enrolled in the program. *The Office Overhead Expense* protection plan is written by Combined Insur-

ance Company and offers up to \$1,500 in monthly benefits in the event of disability. There are about 200 enrollees.

The Council conducted a thorough review of the *OSMA Sponsored Pension Plan* for physicians. The master plan, adopted several years ago, was designed to provide to small pension plans the same advantages of group purchasing and management as was then available to larger plans. By the time the OSMA plan was fully developed and offered to the membership, several significant changes were made in the pension plan laws that resulted in no substantial advantage in joining the OSMA plan. At the time of the detailed review, there were seventeen different plans, each of which represented varying numbers of physicians. OSMA had a pension advisory board that met with administrators and trustees on a periodic basis to review the progress of the plans. An interesting characteristic of the program was that each physician owner of a plan made his own investment decisions. Thus, the advisory board had no real authority to impact on a particular plan, and was in a position of being criticized for poor pension plan performance without having the right to take corrective action. After lengthy consultations with a number of pension experts, it became obvious there was no real benefit to OSMA members in sponsoring a pension plan. The Council recommended to the Board of Trustees that OSMA sponsorship be withdrawn after proper notification to the participants. Sponsorship was withdrawn effective January 1, 1981.

*Travel programs* that offer vacation and educational opportunities for members continue to be popular. Last year OSMA and INTRAV used group mailings (more than one tour offered in each mailing) to promote a total of eight trips. One hundred forty-one physicians and their wives participated in the tour programs. About 200 travelers participated during the same period the year before.

The Association has a contract with PLICO to conduct *Risk Management* and *Malpractice Prevention* educational programs throughout the State. Ed Kelsay, Staff Legal Counsel, conducted 110 such sessions at meetings of hospital medical staffs and County Medical Societies, in which approximately 2,000 physicians and 2,500 allied health personnel have participated. In addition, out of town guest physicians have been used in a number of sessions, as well as defense lawyers employed by



PLICO. OSMA also publishes the "PLICO Newsletter" quarterly, which keeps physicians up to date on professional liability happenings. (See PLICO Annual Report.)

The *Physicians Care Committee* continues to be available for consultation with members of the Association who have personal problems that require discrete professional advice. The Committee has followed a very cautious course and continues to build its credibility. Committee information is held in strict confidence, and no records are kept on physicians working with the Committee. The Committee is available to any OSMA member who has a professional or personal problem that is or could impair their ability as a practicing physician. Council on Members Services Report AA addresses a specific problem of the Committee and similar committees organized at the County Society level.

The *Grievance Committee*, one of OSMA's standing committees, is charged with the responsibility of reviewing, investigating and adjudicating grievances between physicians and/or physicians and patients. The Committee has always attempted to have problems resolved at the local level if possible. Thus, most grievances are referred to the County Medical Societies, and in the great majority of cases, a successful solution is achieved. This year the Committee has been handicapped because of conflicting rulings of the Justice Department and the Federal Trade Commission. Many of the grievances referred to OSMA involved fee disputes, and there is a question regarding potential violations of the Sherman Anti-Trust Act if we inadvertently "fix" a fee while resolving a grievance. Hopefully, these issues will be resolved soon. Other reports before the House of Delegates deal directly with this issue.

The Council continues to encourage *Medical Student and Resident Membership* in OSMA. Both metropolitan County Medical Societies now provide for student and resident membership, and the Board of Trustees has adopted a policy for financial support of representatives of these organizations. Normally that consists of assisting in the payment of expenses for attending section meetings at AMA sessions.

The Council conducts an ongoing *Membership Drive*. Identified non-members are sent a membership packet that details Association benefits and outlines the history and purpose of the Association. Once each year *all* non-members of the Association are sent a spe-

cial letter from the Association encouraging membership in county, state and national organizations. Last year OSMA joined with the AMA in a special membership drive, which included special communications from the AMA and a letter from the AMA President. Our membership has continued to increase by a modest 4% to 5% each year over the past decade. In fact, OSMA is one of only three states given special recognition by the AMA for exceeding previous years' membership levels for three years in a row.

There are a number of doctors practicing in the state who are not members of OSMA (our records indicate 452). Some of these will become members, but some for whatever reason will elect not to join. All physicians should remember that Association gains apply equally to all doctors practicing in the state, regardless of their membership status.

Currently the Association grants a *Partial Dues Exemption* to physicians who enter practice their first year, a policy also adopted by the AMA. First year dues are ½ regular dues. Consequently, a new physician is charged either \$215 or \$107.50 his first year in practice, depending upon the time of year he joins. Not all County Medical Societies extend the same exemption privilege. In fact, since all County Societies collect their own dues, there is no way for the Association to know exactly what policy is in effect at the County Society level. The Board of Trustees instructed the Secretary-Treasurer to study the dues structure for new members (entering practice for the first time) to determine if the policy of charging ½ dues should be changed. Our records show that approximately 90 physicians were granted partial dues exemption, and we are not entirely certain that all of these entered practice for the first time. Some may have been ½ year dues. It appears that neither the Association nor AMA lose significant dues income by granting the partial exemption.

#### RECOMMENDATIONS:

The Council requests that the report be approved and that its activities be continued.

#### BUDGET REQUEST:

Council Activities	\$2,000.00
Student Activities	1,500.00
Resident Activities	1,500.00
Total	<hr/> \$5,000.00

Respectfully submitted,  
C. Alton Brown, MD, Chairman

John A. McIntyre, MD  
Jack Myers, MD  
Thomas C. Glasscock, MD  
Joe Ray Hamill, MD  
Eugene Feild, MD  
Jared L. Bryngelson, MD  
Richard A. McKinne, MD  
C. E. Woodard, MD  
Robert A. McLauchlin, MD  
Jerry B. Blankenship, MD  
James S. Jones, MD  
Milton Sugarman, MD  
Joe Hester, MD  
Gerald R. Dixon, MD  
L. A. Myers, MD  
William G. Bernhardt, MD  
Ralph Buller, MD

RESOLUTION: 7  
(APPROVED)

INTRODUCED BY: The Oklahoma Society of  
Internal Medicine

SUBJECT: Equitable Risk Classification in  
Medical Liability Premiums

REFERRED TO: Reference Committee IV

WHEREAS, OSMA has, for almost two decades, sponsored a professional liability insurance program that provides high quality medical liability insurance coverage to its members at reasonable rates; and

WHEREAS, OSMA, by formation of PLICO, has the opportunity to equally distribute the premium based on the risk of the various categories of physician insured — a prospect not likely to occur with a commercial carrier not managed by physicians; and

WHEREAS, the risk of medical malpractice action to any particular category of physicians is variable and dynamic, requiring frequent study and updating of loss experience data; and

WHEREAS, medical liability insurance premiums should reflect, in as much as possible, the actual cost and risk of providing insurance to any particular category or group of physicians; now, therefore, be it

*RESOLVED*, that the Oklahoma State Medical Association support the concept that premiums of medical liability insurance should reflect the costs and risk of providing that insurance to each category insofar as feasible based on accepted underwriting principles.

Note: Comparable resolutions have been passed in the following states:

Arkansas	Missouri	Virginia
California	Montana	Michigan
Hawaii	New Mexico	Maine
Illinois	Pennsylvania	South Dakota
Mississippi	Tennessee	North Carolina

RESOLUTION: 11  
(SUBSTITUTE RESOLUTION  
APPROVED)

INTRODUCED BY: Kingfisher County Medical Society

SUBJECT: Study of Physician Population

REFERRED TO: Reference Committee IV

WHEREAS, the state population has increased twenty percent in the last ten years, while the MD population has increased fifty percent; and

WHEREAS, in the past five years, 2,209 medical licenses have been issued and only twenty-two percent of those being University of Oklahoma graduates; and

WHEREAS, the ratio of physicians to population in the State of Oklahoma has decreased twenty percent in just the last three years alone; and

WHEREAS, the experience in California has clearly demonstrated an excess of physicians greatly increases medical care cost, and

WHEREAS, the primary objective of the State Medical Association is to insure and provide top quality cost-effective medical care to the people of the State of Oklahoma; now, therefore, be it

*RESOLVED*, that the Oklahoma State Medical Association conduct an in-depth and intensive study of the physician population for the State of Oklahoma, and consider recommending legislation to update the Oklahoma Medical Practices Act. □



## Leaders in Medicine: A New Series

Every society, every community, every organization and every gathering of people has its leaders. Although the qualities of leadership are fairly consistent and easily recognized, the influence of leaders varies from negative to positive, from bad to good and from destructive to constructive. Rarely is the influence purely of one extreme or the other but usually is somewhere along the scale between the extremes. History takes little note of the great majority of us who populate the center or near-center of that scale and today's media, unfortunately, take too little note of those leaders of our society whose influence is largely beneficial.

With this issue of the *Journal*, we intend to rectify some of our past oversights in this area. Our effort is not impulsive nor is it timely. For years we have recognized as one of our appropriate obligations the need to express our esteem and our gratitude to the leaders of our organization and our profession. Although we have tried for many months to initiate this

series, our efforts were fruitless until now. Many of our outstanding leaders are no longer with us and our homage has found expression only in the poignant, pallid words of an obituary.

Our *Leaders in Medicine* series begins with the story of Doctor George H. Garrison. We could say many things about Doctor Garrison but no words could exceed the eloquence of his life. His influence as a teacher, a physician, a humanitarian and a citizen certainly approaches the purely good, purely positive and purely constructive extreme. His services to us as students of medicine, members of professional societies and citizens of Oklahoma are immeasurable. He is truly one of our leaders and one of our blessings.

Further editorial comment is superfluous and unwarranted. I am proud to introduce our series with Doctor George Garrison. I have been one of his students, one of his admirers, one of his beneficiaries and one of his colleagues for almost forty years. I know that I am joined by thousands of other admirers when I take this opportunity to say,

Thank you, Doctor Garrison.

—MRJ

## Leaders in Medicine — George H. Garrison, MD

JUDY LEITNER

His medical career has stretched more than half a century but "it has passed like a short dream" for George H. Garrison, MD. And after 57 years during which he has seen thousands of patients, the 82-year-old pediatrician is still convinced that "children are the nicest people we know."

His dark eyes sparkle with pride as he reviews a very active practice of pediatrics which he still continues with the same dedication and enthusiasm with which it began in January 1929. Following completion of his medical education and residency training at Washington University School of Medicine, St Louis, Dr Garrison and his wife Anne elected to locate in Oklahoma City to establish a practice in pediatrics, a field which was still in its infancy.

The manner in which Dr Garrison selected Oklahoma City as his new home reflects the thoughtful, ordered manner which has marked his professional career. The Garrisons decided they wanted to live in a city with a population of 50,000 or more located between the Mississippi River and the Rocky Mountains.

Just prior to completing his residency, Dr Garrison prepared a questionnaire which he

mailed to chambers of commerce in all cities meeting the specifications. The questionnaire surveyed the towns' populations, school census, tax rate, hospitals, and other areas of significance to a young doctor establishing a practice solely for children.

"I also checked the AMA directory for the number of physicians doing specialty practice in each area," said Dr Garrison. "After visiting several cities, I received encouraging answers from the Oklahoma City people so I made a visit here."

He and Mrs Garrison spent their first night in Oklahoma in Tulsa's Mayo Hotel; a night which is now famous in Oklahoma's history and has been very important in its economic development. The Garrisons' visit coincided with the bringing in of the Mary Sudik oil well in Oklahoma City which opened a major field.

Dr Garrison says he never considered any other profession. His family has produced seven physicians within the past four generations. Both his grandfather and father were physicians in Illinois, as were one uncle and two cousins, and one of Dr Garrison's two sons, George Bolar Garrison, is an anesthesiologist in Oklahoma City.





Shea Powell, longtime patient and former neighbor, pays a visit to Dr Garrison's office for a pre-camp physical. Shea is the 11-year-old daughter of Mr and Mrs John L. Powell, Oklahoma City.

Dr Garrison's father, a general practitioner, also practiced for more than 50 years. In fact, between Garrison's, grandfather, father, his own service and his son's, the four have practiced medicine a combined total of 175 years.

Dr Garrison still sees patients six days a week in his cheery office in Oklahoma City's Pasteur Building. In recent years, he has started closing the office on Wednesday afternoons and has jokingly promised Mrs Garrison that in 1988, he'll start taking another afternoon off each week.

"Medicine has been his life's work. If he does take more time out of the office, I would like to see him volunteer his time in a free clinic somewhere," said Mrs Garrison. "Medicine is what he enjoys and that's what I want him to do."

Dr Garrison was born in Pearl, IL, a small town located on the banks of the Illinois River about 70 miles north of St Louis, at a time "when steamboats made twice weekly trips from St Louis to Beardstown and Peoria to haul livestock and produce to and from the markets."

Dr Garrison's father, in addition to his own

practice, was a local surgeon for the railroad. In addition to his fee for his service, Dr Garrison remembers his father was "privileged to ride in the caboose or locomotive to the next town, located five miles east, when the river covered the bottom land making it impossible to reach by horse and buggy, the usual means of travel."

His eyes dance with merriment as he confides his father was not only a horse-and-buggy doctor, he also was one of the first physicians in their area of Illinois to utilize the "horseless carriage" to make his rounds. Dr Garrison began at an early age accompanying his father on these visits.

Dr Garrison attended Whipple Academy and Illinois College, Jacksonville, IL, where he met his wife and represented the college in intercollegiate debate. In 1966, Dr and Mrs Garrison received a Joint Citation as Distinguished Citizens from the college. In 1918, he entered the University of Illinois where his father had located as a contract surgeon for the government during World War I. His father was determined to serve his nation even if he was "too old for regular service," Garrison said.





Each of Dr Garrison's patients is special to the pediatrician who continues an active practice which is now devoted primarily to well-baby care and preventive medicine.

Dr Garrison himself was a member of the Student Army Training Course until the armistice, just four weeks before his unit was scheduled to ship out for European service.

It was his love of children and his admiration for two teachers in medical school that influenced Dr Garrison's decision to specialize in pediatrics. One of these instructors, himself a pediatrician, was McKim Marriott, MD, who became internationally famous for his work in infant feeding research.

When Dr and Mrs Garrison arrived in Oklahoma City, there were five pediatricians in the state capitol city and six or eight in Tulsa, said Dr Garrison. Oklahoma City boasted a new children's hospital, Crippled Children's Hospital which had opened just a few months before in 1928, and a new medical school building dedicated three months prior to his arrival.

Almost immediately upon arrival, Dr Garrison applied for a clinical appointment at the University of Oklahoma Medical School, an affiliation he continues to the present. He is currently a clinical professor of pediatrics. He began his long career at OU as a clinical instructor in the outpatient clinics. At that time, instructors also donated one month each year to the hospital's inservice programs.

In 1931, he began teaching in the medical school's pediatric clerkship program. At that time, junior or third-year students began taking patient histories and performing record-keeping functions.

He continued his involvement with the clerkship until 1947 and fondly recalls those years of service given while he maintained a growing private practice. "All students went through the pediatric clerkship so I became acquainted with the future doctors, and their friendships have meant a great deal to me over the years," Garrison said. "It was a delightful experience which did more for me than it did for the students."

During the early '30's, there were pediatricians only in Tulsa and Oklahoma City, he said. "Because of that, we in Oklahoma City were called in consultation on occasion to cities south, north and west of us; McAlester, Ardmore, Lawton, Elk City, Alva, Ponca City, and areas in between," he said.

Dr Garrison's method of handling consultation requests was, whenever feasible, to leave as soon as possible after finishing the day's work in his office. Mrs Garrison accompanied him on these trips so Dr Garrison could see the patient and return the same night. He always took along a pillow and blanket "for my return sleep on the backseat" while his wife did the driving. On occasion, the Garrisons would bring patients back with them in their own car so the youngsters could be hospitalized more quickly.

The diminutive physician enjoys relating two occasions when the schedule was varied.

"In 1935, a physician in Alva suggested he would send a plane for me if I had no objection to flying," he said. "I told him that was satisfactory as I was accustomed to flying. I had flown once," he confided.

"When the plane arrived it was about the size of today's compact car, an open-air-conditioned model with a small seat immediately back of the pilot and no space for my bag except on my lap."

He recalls the ride was beautiful "as we cruised only a short distance above the tree tops, traveling comfortably until we made a bank to descend. As we started down, it was then I suddenly questioned the wisdom of my decision to fly."

About eight years later, he again was asked to fly in to see a patient. He was asked to come to Woodward Air Base. "Showing aerial progress in that short time, we rode in



a military five-passenger observation plane with pilot and co-pilot."

Although modest about his accomplishments, Dr Garrison points with pride to the pediatric preceptorship program he helped to establish at the OU Medical Center. One of the first of its kind in the nation, it gives medical students a first-hand look at the demands made on physicians in private practice.

"Over the years, I've had many physicians tell me it was during their preceptorships that their eyes were opened to what a medical practice really involves," Garrison said.

His affiliation with and service to the Oklahoma State Medical Association and Oklahoma County Medical Society is as longstanding as is his medical school affiliation.

He served six years as Speaker of the House of Delegates of the State Association before becoming Association President in 1949-50. During his tenure as president he asked the House of Delegates to establish a grievance committee so that patients and the public might have a body with which it could file complaints of any nature.

During his medical career, Dr Garrison has witnessed many changes in pediatrics. He has participated in the growth of the specialty from its pioneer days to a time when a listing of pediatric subspecialties includes cardiology, surgery, radiology, neonatology and adolescent medicine, to name a few.

During the early years of his medical practice, there was scarcely a time when medical students were not able to see cases of pneumonia with empyema, appendicitis with perforation and peritonitis, acute osteomyelitis, mastoiditis and poliomyelitis during their clinical years.

"Specific treatments were very limited," Garrison said. "Antitoxin was available for diphtheria, quinine for malaria, anti-serum for meningococcal meningitis, insulin for diabetes, and mercury and arsenic for syphilis were all helpful and pioneered the field toward more specific and scientific therapy."

During the 57 years since his graduation from medical school, Dr Garrison has seen treatment procedures improve from use of cold, heat, poultices, blood-letting, bed rest and intravenous and intraperitoneal fluids to the present day when physicians have a full range of antibiotics and other medications to call upon.



On April 26, 1977, the seven-story addition of Oklahoma Children's Memorial Hospital, an acute care facility named in honor of Dr Garrison, was officially dedicated.

"We didn't have the sulfa drugs until the late '30s, and penicillin wasn't widely available until the '40s," he said.

One of the more unusual treatment procedures Dr Garrison utilized in the early days of his practice was to administer ether in oil rectally as a treatment for pertussis. He also gave mercurochrome solution or typhoid vaccine intravenously to patients with severe unresponsive illness.

"If the patients treated with typhoid vaccine in the vein were not helped with problems, we hoped they were at least protected from typhoid fever for a while," he said.

During his career, he has watched the disappearance of a number of childhood diseases. "At the present time, for all practical purposes, we have almost controlled measles, mumps, rubella, scarlet fever, diphtheria and whooping cough through vaccination and antibiotics," he said.

Once common childhood ailments such as typhoid, malaria, erysipilas or St Anthony's Fire, polio, tuberculosis, enteritis and "summer complaint" have all but disappeared. Ear infections leading to mastoiditis and meningitis are now countered with antibiotics and polyethylene tubes in the ears.

During the last 25 years, greater knowledge and skills in the field of anesthesiology have made possible phenomenal progress in pediatric surgery, said Dr Garrison. "It has been only with the last 20 years that someone other than pediatricians began adminis-



tering anesthetics to children. Over the years, I have administered many."

He cites the development of vaccines for common childhood illnesses as one of the greatest accomplishments medical science has made during his career. Asked for his stance on discontinuing smallpox vaccination, Dr Garrison's eyebrows, which speak a language all their own on his very expressive face, stand straight up like exclamation marks.

"It may not happen in my lifetime, but I believe there will come a day when the newspapers carry stories with headlines in very large type about the occurrence of cases of smallpox," he answered. "And there won't be any vaccine to handle the situation, let alone people with skills to treat the disease."

Suddenly realizing the emotion with which he responded to the question, Dr Garrison relaxed in his chair, and related a favorite quote from a longtime former colleague and valued friend, the late Dr Joe Kelso, who often said, "I may not always be right, but I'll not ever be without an opinion."

During a career that now allows him to treat a fourth generation in one family and numerous third generation patients, Dr Garrison has seen the mortality rate of meningitis decrease from 25 percent when he was five years out of medical school to less than five percent today.

When asked during the portion of an interview conducted in his home what advice he would give to pediatricians and other physicians just starting out in practice, he answered that physicians must be fortunate in the choice of a mate and learn to express themselves well to their patients.

Mrs Garrison endorsed this advice saying "lack of communication is the greatest complaint" heard about today's physician.

"Physicians must be willing to explain in great detail to the patients and their families. We must be willing to spend the time necessary to explain well," he said.

To be fully prepared for the demands of present-day practice, physicians should understand human behavior and must have feelings for the patients and their families, Garrison adds, in whatever their situation.

"In all of the periods of life and development through which the individual passes, there is not one for which he is generally less

prepared than marriage or parenthood," Garrison said. "Without return to a satisfactory replacement of the family nucleus, the outlook for solution of the inherent problems here is dim."

Garrison said the horizon of emotional problems is daily increasing for children and their families. "We must prepare for increased need for emotional guidance, especially for the teenagers in the area of prevention and earlier practical benefits from treatment."

He pointed out that increased emotional problems are bound to arise in an era when the number of divorces in the area annually equals the number of marriages; when more than 20 percent of the newborns for the past five-or-six years have been born of unwed mothers and 95 percent of those infants are taken home by the mother into a "mostly inadequate home situation" which often results in frequent changes of care-supervision to which the infant and young child cannot adequately adjust.

"The decade of the '90s will most likely exhibit teenage emotional problems far greater than the 'unrest' of the '60s," Garrison predicts. "Psychiatry is not yet ready to meet such a situation."

In the future, medical science must learn much more about nutrition, Dr Garrison said. "We learn more about nutrition each passing year but using it effectively is difficult because of the effect of television and other forms of advertisement." He said the medical profession needs to take a role in helping to clarify the public's understanding of nutrition.

"Allergy is coming to the surface with scientific information and studies which open an avenue to immensely improved clinical results in management," he said. Earlier identification of the individual problem and effective and efficient treatment are the hurdles health professionals must now clear.

Improved x-ray diagnostic aid and laboratory capabilities such as micro-techniques in blood studies have provided the tools with which the present day physician can be allowed to turn attention toward preventive medicine rather than acute care, Dr Garrison said.

Most of his present caseload is well-baby care and preventive medicine, he said. He still accepts new patients but no longer treats patients in need of acute care or hospitaliza-





Dr Garrison points with pride to photos displayed in his office of Garrisons who have served the medical profession in the past four generations.

tion. He still makes occasional housecalls and often meets patients at his office after hours or has them come to his home if they should require examination on a Sunday afternoon.

When asked if she ever resented these infringements on Dr Garrison's time, Mrs Garrison, a native of Bellville, IL, quickly replied with a firm No. "I was well prepared for the sacrifices required of a doctor's wife. I'm a minister's daughter and ministers' families are required to make sacrifices."

Because she was aware that not all wives of medical school students were well prepared for the demanding life of the physician's wife, Mrs Garrison, with the help of devoted friends, organized WASAMA, an auxiliary for wives of medical students.

"We tried, through the auxiliary, to let them know they were not alone in this and that every profession has its own set of problems," Mrs Garrison added. The groups would hear from speakers on a variety of topics along with providing a social outlet for those who found themselves with lots of time on their hands in a new city in which they did not know many people.

Although the organization founded at OU by Mrs Garrison and her friends for a while

was found in medical schools throughout the nation, it does not now enjoy national status. OU's chapter is still active and Mrs Garrison is still one of its sponsors.

"We tell the girls they must grow, they can't let down and they have to keep up with the medical profession," she said. Because their spouses are gone a great deal of the time, medical student wives have time to develop their interests, something Mrs Garrison certainly encouraged.

Over the years she has been active in WASAMA and her church, where she was honored as being one of two women selected for the building committee of Westminster Presbyterian.

Dr Garrison almost winces when asked to list the honors bestowed upon him during his illustrious career. "We've had more (honors) than anyone could hope for."

Dr Garrison is one of three pediatricians honored by having components of the Oklahoma Children's Memorial Hospital dedicated in their name. The hospital's acute care facility, a seven-story structure is known as George H. Garrison Tower. Two other sections are named in honor of the late Doctors Ben H. Nicholson and Charles M. Bielstein.



At the dedication of Garrison Tower in the spring of 1977, John A. Schilling, MD, a former member of the OU medical center faculty, said in the dedicatory address, that it was no accident the hospital was named Garrison Tower. "He (Dr Garrison) is a beloved pediatrician, who has devoted his entire professional life to the medical care of children."

More than that, through his gentle interpersonal relationships, and his simplistic integrity as a person — the hallmark of greatness — he has provided a role of leadership and precept that is difficult to equal."

He became a fellow of the American Academy of Pediatrics in 1937, a fellow of the College of Physicians in 1945 and was elected to membership in Alpha Omega Alpha in 1953. A member of the Oklahoma County Medical Society's 50 year club, he was awarded an OSMA Life Membership in 1974 for his "outstanding service to humanity and the medical profession."

In 1976, Dr Garrison was presented the OSMA Distinguished Service Award. The plaque symbolizing the award is proudly displayed in Dr Garrison's office, along with his medical school diploma and copies of the diplomas of his grandfather, father and son.

The Downtown Sertoma Club of Oklahoma City recognized Dr Garrison in 1977 for his service and dedication to "others less fortunate" through his practice of pediatrics.

In 1971, Dr Garrison was one of two practicing pediatricians selected by the Department of Health, Education and Welfare to serve on a national, 14-member blue ribbon committee which met in Washington, DC to study and report on the use of stimulant drugs in the treatment of behaviorally disturbed young school children.

He was a Trustee of Oklahoma Blue Shield Board for 18 years; has served as one of three representatives of the American Medical Association on the Medical Advisory Committee

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*Judy Leitner received her Bachelor of Arts degree in Journalism from the University of Oklahoma in 1969 where she was listed on the Dean's Honor Roll. She has been a writer and reporter for various publications in Oklahoma and Washington, DC and the recipient of many honors and awards.*

of the National Jaycees, and for many years served as a consultant to the State Health Department on maternal and infant care.

In 1950, he attended a White House conference on children and youth which is held at the beginning of each decade and brings together representatives of medical and social areas to make recommendations.

During all his years of practice, one nine-week stay in the hospital is the longest period Dr Garrison has been away from his practice. Still, he and Mrs Garrison have found time to travel extensively throughout the United States, Mexico, and Europe, particularly along the Mediterranean Sea and Scandinavia.

Traveling and photography have filled his leisure time in the past. He has even had photographic displays at St Luke's Senior Citizen Program.

The Garrisons "enjoy" the rewards of the pediatrician. Not many weekends pass without their attending a wedding of a former patient. "I've even attended weddings in which both the bride and groom were former patients," he laughs. "In fact, I recall one Saturday in particular that Mrs Garrison and I attended or at least participated in the receptions of four weddings, all involving former patients."

"Pediatricians just develop a closer feeling with patient families than in any other specialty," Dr Garrison claims.

His office walls bear witness to the mutual admiration which his patients feel for him. The walls display items made for him by "his families."

And the good doctor enjoys recounting an incident in which a patient's mother asked Mrs Garrison how she enjoyed living with an angel and her answer was "Have you ever tried living with an angel?"

Although it was nine years after they met before they married, they have been married for more than 54 years. "I wouldn't trade her for a newer model," Garrison said. They have two sons, Bolar and Charles (a Tulsa businessman), and five grandchildren.

Dr Garrison says none of his grandchildren expressed an interest in pursuing a career in medicine and if they decide on other careers, he won't be disappointed. His family already has made a contribution to medicine which will be difficult to equal.

*(Photos by Donald Norris.)*



I guess that when a physician has been in practice from 30 to 40 years he might momentarily enjoy the thought of limiting his work or even retirement. Before writing this I consulted our legal counsel at OSMA, Mr Ed Kelsay, and the following has been almost totally plagiarised from his unlimited knowledge of medical law. He has published a manual entitled "The Business and Legal Side of Practice" which every physician should read. This is available to our members at a minimal charge and it contains a myriad of information which is applicable to us all.



Since I became President in May several inquiries concerning the closing of a physician's office have prompted me to seek Mr Kelsay's help and the following can be found in this manual.

Whether a physician dies or is simply changing addresses or practice status, there are certain agencies that need to be notified as soon as possible. Some notifications are required by law, others are good publicity, and some just make good sense.

1. The Oklahoma Board of Medical Examiners.

2. The Drug Education and Enforcement Agency needs to be notified anytime a physician changes his principal *place* of practice or becomes deceased. In the latter case, his DEA number needs to be terminated. On the former case, a new DEA number needs to be issued for the physician's new address.

3. Specialty Societies, county medical societies, the AMA and the OSMA would like to know as soon as possible. It should be noted that the AMA maintains **the** national registry of all physicians. It also can see that physician's names are removed from mailing lists for drug samples, drug literature, and handout literature.

4. Because of the lag time between the filing of a claim and its final payment by Medicare, Medicaid, Blue Shield and other insurance companies, physicians who retire or even whenever they change addresses should notify them.

5. One of the most perplexing problems is what to do about medical records. The physician or his estate does not have the right to destroy a patient's medical records. This information must be protected for future use by the patient, if needed. Generally, when an office is closing, all of the physician's current patients (those he has seen within the past five years) should be notified that the office is closing and then given an opportunity to have their medical records forwarded to another physician of their choice. It is not advisable to turn the records over to the patient. Realizing that there will be a preparation and mailing cost involved, very few patients will object to paying a minimum amount for this service. A log should be retained showing where each record was sent. It is not necessary to transmit financial data. After the maximum number of records have been forwarded to other physicians, the location of the remainder of the records should be given to the OSMA to be included in the physician's membership record, to the county medical society if it maintains a business office, and to other physicians, hospital administrators, and clinic managers in the area.

There is no specific law on how long a medical record should be preserved, however, legal authorities have recommended that in Oklahoma, medical records should be kept a minimum of 10 years after the date the patient was last seen. Records of patients who were minors when treated should be preserved until two years after the patient reaches 18 years of age.

Probably most of you out there consider these to be little known facts of little interest — maybe I'll do better next time.

*J. B. Peth*

## Radionuclide Studies in Patients With Coronary Artery Disease

HENRY M. ALLEN, PAC  
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*Nuclear cardiology is becoming an integral part of the diagnosis and follow-up of cardiac patients. Its safety and relative non-invasiveness makes it an excellent clinical tool.*

Radionuclide studies are rapidly becoming an integral procedure for the non-invasive diagnosis, evaluation and follow-up of patients with coronary artery disease. The major advantage of the non-invasive study is its safety.

Prior to the advent of radionuclide studies, the evaluation of ventricular function and coronary artery patency could be assessed either by indirect methods (eg, exercise stress testing) or by direct visualization of the dynamic heart (e.g., contrast angiography at cardiac catheterization or 2D-echocardiography).

Indirect methods, eg, exercise stress-testing, usually have varied sensitivity and specificity depending upon the populus being tested, the protocol used and the examiner's experience. 2D-echocardiograms are quite sensitive to changes in ventricular function and valvular

heart disease but leave much to be desired in the diagnosis and evaluation of coronary artery disease. There are about five to ten percent of patients in whom interpretable studies cannot be obtained.

Contrast angiography by cardiac catheterization is the gold standard for the determination of ventricular function and the patency of coronary arteries. Although it is critically important in many instances, catheterization is impractical for the repeated evaluation of patients with coronary disease. Catheterization complications, although rare, can be very serious.

With the recent technological advances and the incorporation of the computer, radionuclide studies now permit a non-invasive, rapid quantitation of ventricular function, diagnosis of myocardial ischemia and a more accurate estimation of myocardial infarction size and location.

### HISTORICAL REVIEW<sup>1</sup>

Nuclear cardiology is not a new field, as some have been led to believe. One of the first documented utilizations of radioactive material in cardiovascular diagnosis was in 1927 by Blumquart and Weiss. They injected radium-C salt into an arm vein and measured the circulation time by recording the arrival of radioactivity in the opposite arm with a Wilson cloud chamber.



In 1954, Veall and associates presented a paper on how to derive the cardiac output from the left ventricular portion of the radiocardiographic curve. MacIntyre and associates validated these findings in 1958.

Actual imaging of the cardiovascular system was pioneered by Rajali and associates in 1958. With the advent of cardiac imaging in 1958 and the availability of the large crystal scintillation camera described by Anger in the same year, nuclear cardiology began a tremendous growth.

The next surge of growth came with the development of Technetium-99m by Richard and Harper et al, in the early 1960's.

Brown was one of the first to utilize computers in nuclear cardiology in 1964.

Mullins and his colleagues, in 1969, employed radionuclide angiography for the determination of left ventricular volume. This achievement ushered in a rapid development of techniques for the estimation of cardiac output. By 1971, Strauss and associates had developed a method for the measurement of left ventricular ejection fraction.

One of the recent advances is the potential of accurate infarct-sizing by the three-dimensional reconstruction method developed by Lewis and coworkers.

#### "HOT SPOT" IMAGING

Hot-spot imaging (better-termed infarct-avid imaging), utilizing Technetium-99m stannous pyrophosphate, was introduced by Bone and coworkers<sup>2</sup> in 1973.

Routinely 15 mCi of Tc-99m (Sn) pyrophosphate is injected intravenously. Two hours later the patient is placed in a left anterior oblique, anterior and left lateral positions and the cardiac images are recorded with a standard scintigraphic camera.

The trace Tc-99m (Sn) pyrophosphate accumulates both in the bone and at the site of myocardial necrosis. In patients with an acute transmural myocardial infarction, there is a localized accumulation of radioactivity in the region of the myocardial injury.

Hot-spot imaging, generally, should be done between 12-and-72-hours post-infarction (or from the time of onset of symptoms). The scan will remain positive for about seven days but occasionally longer. There is usually a poor prognosis for patients that have a persistently-positive scan two-to-six months

post-infarction. Most investigators feel that the persistently-positive scan is generally due to extensive myocardial damage.

The sensitivity of the Technetium-99m (Sn) pyrophosphate scan in acute transmural myocardial infarctions, when the scan is obtained 12 hours after onset of symptoms and within the first seven days, is nearly 100%.<sup>3, 4</sup> Anterior wall infarctions are more readily detected than inferior wall infarctions. Also infarctions of less than three grams in weight are presently below the limits of resolution and are usually missed. Acute nontransmural myocardial infarctions, unfortunately, do not carry the same high sensitivity as do the transmural infarctions. Different investigators report sensitivity ranging from 40-to-90%.

Specificity of the Technetium-99m (Sn) pyrophosphate scan is a little less controversial. Wynne and associates<sup>5</sup> analyzing data from fourteen different series, totalling 562 patients with acute myocardial infarctions diagnosed by conventional criteria (clinical history, serial ECG's, serial CPK isoenzymes, serial LDH isoenzymes) showed that the Technetium-99m (Sn) pyrophosphate scans were positive in 94% of the patients. In the control group of 1,083 patients with no clinical evidence of acute myocardial infarction, the

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scans were negative in 83%, with a 17% false-positive rate. (see Table I)

TABLE I  
False Positive Technetium-99m (Sn)  
Pyrophosphate Scans

Cardiac Uptake-Discrete Pattern
Old myocardial infarction
Left ventricular aneurysm
Calcified cardiac valves
Cardiac trauma
Pericardial tumors
Pericarditis
Cardiac Uptake-Diffuse Pattern
Angina, stable or unstable
D/C counter shock
Pericarditis
Post-Mastectomy
Extracardiac Uptake
Defibrillation
Breast uptake
Surgical Trauma
Soft tissue tumor
Osteomyelitis of the ribs

Technetium-99m (Sn) pyrophosphate scans generally are not needed in patients where the diagnosis of an acute myocardial infarction is readily and unequivocally made by conventional methods. Unfortunately, many myocardial infarctions cannot be readily and unequivocally diagnosed by conventional methods. It is in this type of situation that the Technetium-99m (Sn) pyrophosphate scans are most valuable. (See Table II for the various indications.)

TABLE II  
Indications for Technetium-99m (Sn)  
Pyrophosphate Scans

1. Diagnosis of right ventricular infarctions
2. Location of true posterior wall infarctions
3. Diagnosis of acute myocardial infarction after resuscitation
4. Perioperative myocardial infarction, eg, coronary bypass surgery
5. Diagnosis of acute myocardial infarction in patients with atypical history and/or nondiagnostic serum enzyme changes
6. Cardiac trauma
7. Estimation of infarction size.

#### "COLD SPOT" IMAGING

The element Thallium was discovered by Crookes in 1891. It was Kawana and associates<sup>6</sup> that first suggested that Thallium-199 could be used for the imaging of

the heart. However, it was not until 1973, when Lebowitz and coworkers<sup>7</sup> developed a novel method for the manufacture of Thallium-201, that the potential of this myocardial imaging agent could be realized.

Thallium-201 is considered a potassium analogue because it behaves much like potassium and is primarily intracellular. Concentrations of Thallium-201 are dependent upon tissue perfusion and active cellular transport (via the sodium-potassium-ATPase enzyme system and probably an unknown mechanism). This means that there will be cold-spots (ie, areas of reduced uptake or an area devoid of uptake) in the areas of underperfusion and/or in areas of impaired active transport.

The most common cause of impaired active transport is hypoxia and the most common cause of hypoxia is underperfusion. Therefore, the majority of the time, cold-spots are caused by underperfusion. Although, it is possible to have hypoxia with normal perfusion which still results in a cold-spot.

Areas of the heart served by critically narrowed coronary arteries (as much as 80-to-90% narrowed) may show a normal Thallium-201 uptake at rest. However, during exercise myocardial oxygen demand increases and if the coronary artery lumen is narrowed (sometimes as little as 40 to 50%), underperfusion results with the production of a cold-spot of the Thallium-201 scan.

Utilizing a standard exercise protocol, the patient is exercised with constant monitoring of his heart rate, blood pressure, electrocardiogram, and symptoms. Most examiners exercise the patient to a "symptom-limited" maximum to gain the most diagnostic values possible.

About one minute prior to termination, 1.5 to 2.0 mCi of Thallium-201 is injected intravenously. The patient is scanned within the first three-to-five-minutes. It is extremely critical to begin imaging as soon as possible to avoid missing acute ischemia which may be present for only a short period.

Imaging should be performed with a high resolution gamma camera and should be obtained in three projections (left anterior oblique, anterior, and left lateral). At least 300,000 counts should be collected per image.

If a cold-spot is noted on the exercise image, the patient is asked to return three-to-four hours later for delayed-imaging. If the cold-spot fills, myocardial ischemia is suspected. A



defect that persists on the delay-image is usually due to scar or very severe ischemia. It is not uncommon to encounter patients with both scar and ischemia.

The clinical application of the Thallium-201 scan in the diagnosis, evaluation and follow-up of patients with coronary artery disease is quite diverse as can be seen in Table III.

Table IV lists the sensitivity and specificity of the various studies of the Thallium-201 scan.

TABLE III

Clinical Application of the Thallium-201 Scan

Thallium 201-Stress Imaging

- Diagnosis of coronary artery disease
- Exercise testing of patients with pre-existing ECG abnormalities, eg, LBBB, WPW syndrome, digitalis therapy.
- Rehabilitation assessment of Post-myocardial infarction patients
- Determination of physiologic significance of coronary stenosis noted on coronary arteriography.
- Evaluation of coronary artery bypass grafts.

Thallium-201 Resting Imaging

- Diagnosis of acute myocardial infarction
- Estimation of the infarction size and location
- Pediatric screening for cardiomyopathy vs. coronary anomaly
- Cardiomyopathy
- Evaluation of right ventricular hypertrophy

TABLE IV  
Sensitivity and Specificity of  
Thallium-201 Scan

Study	Number of Patients	Prevalence of Disease (%)	Sensitivity (%)	Specificity (%)
Ritchie <sup>8</sup>	190	77	78	88
Turner <sup>9</sup>	64	53	68	97
Verani <sup>10</sup>	82	79	79	97
Caldwell <sup>11</sup>	52	79	85	100
McCarthy <sup>12</sup>	128	—	87	79
Pohost <sup>13</sup>	—	—	87	75
Borer <sup>14</sup>	—	—	81	90
AVERAGE			80	89

To have a legitimate concept of a procedure and if accurate interpretations are to be made, the examiner must have a good understanding of the procedure's limitations. These limitations are best understood by knowing what can cause false-positive and false-negative results. These are summarized in Table V.

TABLE V  
False Responses to the  
Thallium-201 Exercise Scans

False-Positive Thallium Scan

- Sarcoidosis
- Myocardial fibrosis
- Cardiac contusion
- Coronary spasm
- Over aggressive interpretation

False-Negative Thallium Scan

- Insignificant obstruction
- Inadequate stress
- Single vessel disease (particularly the right or left circumflex coronary arteries)
- Equally distributed ischemia

RADIONUCLIDE VENTRICULOGRAPHY

The main nuclear techniques for obtaining a radionuclide ventriculogram are: 1) first-pass method and 2) the gated-blood-pool method. At our center, we employ primarily the first-pass method; therefore we will limit our discussion to this method. Table VI gives a comparison of the two methodologies.

TABLE VI  
Comparison of the First-Pass and The Gated-Blood-Pool Radionuclide Ventriculography<sup>15</sup>

First-Pass Method	Gated-Blood-Pool Method
30 seconds to record	5-10 minutes to record
Independent of rhythm	Stable rhythm required
Good separation of RV and LV in either RAO and LAO	Good separation of RV and LV in LAO view only
Only one view per injection only one study per injection	Biplane and multiple studies with one injection
Limited counting time for resolution of wall motion	Longer counting time may improve resolution of wall motion
Multicrystal camera optional	Standard single crystal camera used

With the first-pass technique, 10-20 mCi of Technetium-99m is injected as a bolus into a peripheral vein with the patient positioned under the scintillation camera. A multicrystal scintillation camera with a high resolution mode is used to count continuously, recording and displaying as function of time (time-activity curve) as the bolus passes through the right ventricle, lung fields, left ventricle and

TABLE VII  
Sensitivity and Specificity of Radionuclide Ventriculogram

Study	No. of Patients	Wall Motion Abnormalities		Ejection Fraction		WMA & EF*	
		Sens.	Spec.	Sens.	Spec.	Sens.	Spec.
Rerych <sup>16</sup>	60	80%	—	97%	90%	97%	90%
Borer <sup>17</sup>	84	94%	100%	89%	100%	95%	100%
Berger <sup>18</sup>	73	46%	100%	73%	100%	87%	100%
Jeno <sup>19</sup>	19	100%	100%	100%	100%	100%	100%
Caldwell <sup>20</sup>	39	—	—	94%	67%	—	—
AVERAGE		80%	100%	91%	91%	95%	96%

\*WMA=wall motion abnormalities; EF=ejection fraction

into the aorta. With the utilization of a computer, each systole and diastole is accompanied by a change in count activity in the ventricle which is proportional to the changes in blood volume in the ventricular cavities. The "time-activity curve" of the ventricles appears as a series of peaks and valleys. Each peak represents end-diastole and each valley represents end-systole.

With the data from the "time-activity curve," the ejection fraction (EF) can be determined by the following equation;

Ejection Fraction (EF) =

$$\frac{(\text{Counts End-Diastole}) - (\text{Counts End-Systole})}{(\text{Counts End-Diastole}) - (\text{Background Counts})}$$

The images are then reconstructed in a cine-like continuous loop movie for visualization of structural and functional abnormalities, eg wall motion.

This technique can be used to determine cardiac output, ventricular-stroke volume, valve disease, pulmonary transit time and left to right and right to left shunts. One other use of the technique is the evaluation of ventricular-wall motion abnormalities, both at rest and during exercise. Table VII summarizes a few of the reports of sensitivity and specificity of the ventriculogram.

The most widely accepted criteria for an abnormal ventriculogram is when the ejection fraction is 50% or less at rest and does not increase with exercise and ventricular wall motion abnormalities.

The main disadvantage of this method is that only two-or-three studies are possible per patient per day because of the background activity and radiation dosage.

In conclusion, radionuclide studies obtained

by an experienced examiner offer extremely vital information to clinicians and at little risk to the patient. This information is being utilized more and more to determine diagnosis, functional capacity and therapeutic follow-up.

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# Genetic Counseling and Prenatal Diagnosis

MARY F. BLOCK, MD

*The technical advances in medical genetics have made possible the prenatal diagnosis of a variety of inherited and congenital defects.*

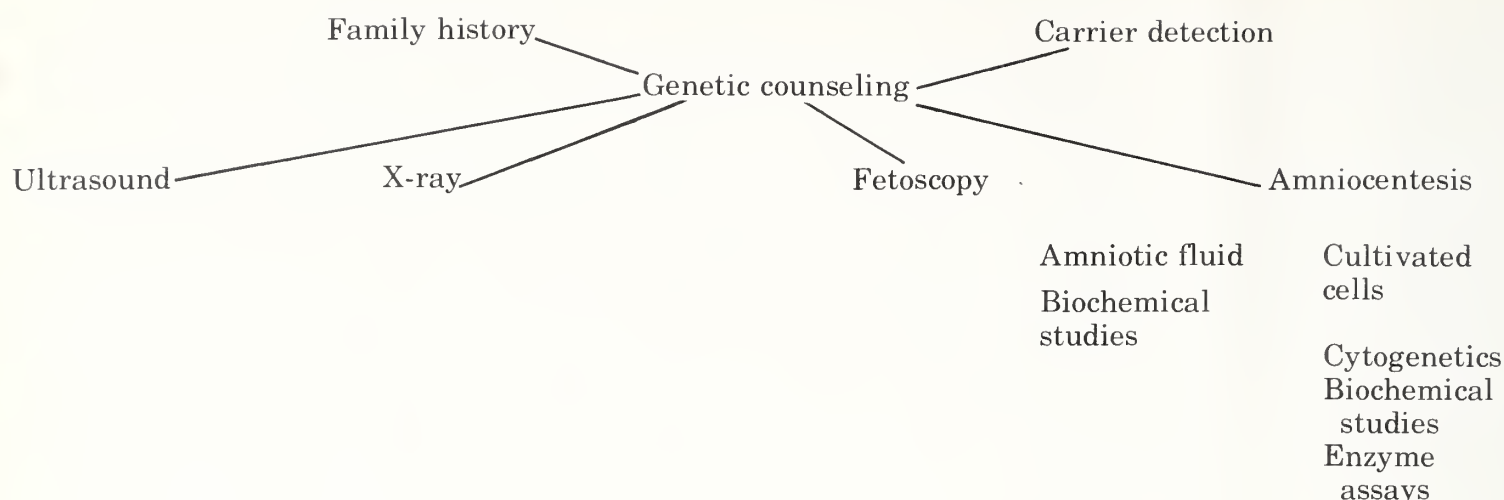
Clinical medical genetics has become an important aspect of health care made possible by recent expansion of technical knowledge. Ideally, genetic counseling should be offered prior to conception. However, technical advances in the diagnosis of numerous birth defects during the early second trimester have made genetic counseling and diagnosis during pregnancy possible. The purpose of this article is to review principles of genetic counseling and methods of prenatal diagnosis relevant to physicians caring for pregnant patients. See Figure 1.

Genetic diseases appear in only 3-5% of all births but have immense impact on family and society because they are present throughout

the lifespan of the individual. There are three types of genetic disease; (1) chromosomal abnormalities, 0.5%, (2) single gene defects, 1.8%, and (3) polygenic disease, 2.5%.

Chromosomal abnormalities such as Down Syndrome, other autosomal trisomies, and sex chromosome anomalies (Turner Syndrome) are usually non-familial. However, they are related to maternal age, and recent evidence would indicate that paternal age is also of significance. Single gene disorders which may be diagnosed antenatally are primarily those in-born errors of metabolism inherited as autosomal recessive and due to a specific enzyme defect, such as Tay-Sach disease and Hurler Syndrome. There are nearly 100 enzyme defects now diagnosable prenatally but the exact disease for which the patient is at risk must be known so that the appropriate test can be selected. Polygenic disease refers to structural inherited defects (cleft lip and palate, neural tube defects). These malformations are multifactorial and a well-delineated pattern of inheritance cannot be defined, possibly because the abnormality may be carried on more than one gene and/or because environmental factors sometimes play a part. Most cannot be diagnosed prenatally at this time. The major exception is the finding of elevated alpha-feto-protein in the amniotic fluid of fetuses with an

FIG 1: Prenatal Genetic Diagnosis



open neural tube defect (anencephaly, meningocele with or without associated hydrocephalus). Advanced in fetoscopy and ultrasound may make the diagnosis of other polygenic defects feasible.

It is the responsibility of the physician to identify the patient at risk for bearing a child with a genetic disorder or birth defect. A careful medical and family history should be obtained at the initial prenatal visit with attention directed to specific areas which are known to be associated with an increased risk, such as age and geographic or ethnic background. Counseling during pregnancy is often complicated by greater anxiety and is somewhat restricted by time limitations and limited options. Prenatal genetic diagnosis via amniocentesis should be offered in the circumstances listed in Table 1.

Amniocentesis at 16 weeks gestation is a relatively safe procedure, the risk with ultrasound guidance being estimated at less than

TABLE 1: Indications for Prenatal Genetic Amniocentesis

- Maternal age 35 years or older
- Previous child with chromosomal abnormality
- Known carriers of balanced translocations
- Family history of a prenatally diagnosable inborn error of metabolism
- Family history of neural tube defect
- Family history of sex-linked disorder (muscular dystrophy)
- Previous child with multiple congenital anomalies
- \*Habitual abortion
- \*Inordinate fear

\*Relative indications

TABLE 2: Complications of Midtrimester Amniocentesis

- Pregnancy wastage
- Maternal bleeding or infection
- Fetal injury
- Technical failure to obtain fluid or grow cells
- Accuracy — 99%
- Other risks — isoimmunization

1%. However, the patient should be advised of possible complications as listed in Table 2. It is important to point out that although the risk of the genetic disorder being investigated may be less than the risk of amniocentesis (for example, a risk of Down Syndrome in a 36-year-old of about 1/350 vs the 1/100 risk of amniocentesis), the burden of dealing with a child afflicted with mongolism far outweighs the burden of losing a normal pregnancy.

Other difficulties with amniocentesis are related to the technical problems of obtaining fluid uncontaminated by maternal blood and cultivation of cells, either of which can result in erroneous results or failure of the test. The risk of maternal Rh isoimmunization can be virtually eliminated by the routine administration of RhoGam to Rh negative patients (whose husbands are known to be Rh positive).

---

*Mary F. Block, MD, was graduated from the University of Kentucky College of Medicine in 1971. Certified by the American Board of Obstetrics and Gynecology, Dr Block is presently associate professor, Department of Gynecology and Obstetrics, University of Oklahoma Health Sciences Center.*



TABLE 3: Other Methods of Prenatal Diagnosis

METHOD	POSSIBLE OR ESTABLISHED APPLICATION
Ultrasound, Pulsed Dopler	
Fetoscopy, Tissue biopsy	
Amniography, Fetography	
Placental Aspiration	
X-ray	
	Bone dysplasias, congenital heart disease, neural tube defects, congenital nephrosis
	Sickle cell disease, hemophilia, cleft lip and palate, cystic fibrosis, intrauterine infections, environmental teratogenesis
	GI atresias, neural tube defects
	Hemoglobinopathies and other blood dyscrasias
	Bone dysplasias

Rarely isoimmunization to other irregular antigens might occur (ie, Kell, Duffy).

Other methods of prenatal diagnosis are worth brief consideration and are listed in Table 3. Neither risk nor accuracy is well established, especially for the more invasive procedures such as placental aspiration and fetoscopy, and these are still largely experimental techniques which may find future application.

The goal of prenatal genetic diagnosis is often regarded as termination of defective pregnancies; prevention of serious birth defects with their economic and emotional burden by selective abortion is certainly a consideration. However, one should not overlook the more likely outcome of prenatal diagnosis which is patient reassurance that her baby is free of the more commonly feared defects. In only rare instances is intrauterine therapy possible for inherited disorders, but future developments may make this alternative an additional stimulus for prenatal diagnosis.

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# Outpatient Coronary Arteriography

WILLIAM H. OEHLERT, MD, FACC, FCCC

*Outpatient coronary arteriography can be performed safely in selected stable patients when the procedure is performed carefully and quickly.*

Inpatient cardiac catheterizations have been performed for over twenty years. The complications of inpatient coronary arteriography approaches are noted in Table I.

One-hundred consecutive outpatient coronary arteriographies have been performed without a death, myocardial infarction, stroke, thrombosis or incomplete study. One male patient had an episode of ventricular fibrillation with a contrast medium injection into the left coronary artery. He was quickly converted to a sinus rhythm and arteriograms were completed without further problem.

The procedure for outpatient coronary arteriography involved catheterizing only stable patients. The procedure was explained to each patient. No premedication was adminis-

tered. Lidocaine was used for local anesthesia.

Ninety-four angiographies were performed from the right femoral artery via Seldinger technique using Judkins-type preformed catheters. Two-or-three-thousand units of heparin were given intra-arterially for anticoagulation.

Six patients had angiography performed from the right brachial artery using a Sones catheter. Five-thousand units of heparin were instilled into the distal brachial artery. The ventricular pressures and ventriculograms were obtained with a pigtail catheter. No procedure took over one hour and most procedures took between fifteen-and-thirty minutes.

Following the arteriography, hemostasis was obtained by pressure over the femoral artery or brachial artery repair. A pressure dressing was applied over the femoral artery or brachial artery.

The patients who had the femoral artery approach were kept in bed with the leg straight for four hours. They were then allowed up, to move around with minimal hip motion for two-to-six hours before discharge. The brachial artery-approach patients were allowed up but not allowed to bend the right arms more than forty-five degrees. The brachial artery patients were observed for



TABLE I  
COMPARISON OF COMPLICATIONS WITH TWO  
CORONARY ARTERIOGRAPHY APPROACHES

COMPLICATIONS	Adams 1973 <sup>1</sup>		Davis 1979 <sup>2</sup>		Sones 1978 <sup>3</sup>
	Femoral N=22,780	Brachial N=24,124	Femoral N=6328	Brachial N=1187	Brachial N=52,953
Death	178(0.78%)	31(0.13%)	9(0.14%)	6(0.51%)	39(0.07%)
Myocardial infarction	230(1.01%)	54(0.22%)	14(0.22%)	5(0.42%)	16(0.03%)
Ventricular tachycardia or fibrillation	322(1.41%)	278(1.15%)			432(0.82%)
Arterial problems	322(1.41%)	435(1.80%)	28(0.44%)	35(2.95%)	1488(2.81%)
CNS emboli	99(0.43%)	7(0.03%)	1(0.02%)	1(0.08%)	4(0.008%)
Coronary emboli					2(0.004%)
Peripheral emboli			4(0.06%)	1(0.08%)	
Arterial thrombosis	271(1.19%)	404(1.67%)	15(0.24%)	22(1.85%)	1482(2.8%)
Arterial dissection			8(0.13%)	11(0.93%)	

four-to-eight hours. The longer observations periods were to allow time for patients to come back to the hospital and to go over the results of the procedure with the physician.

The one patient who was cardioverted from ventricular fibrillation was observed for twelve hours, had no chest pain, ECG changes or cardiac enzyme changes, and was allowed to go home.

Two patients were "electively" admitted after discussion of their arteriograms. One patient had a significant left main coronary

artery lesion. The other patient had significant three-vessel disease with a proximal left anterior descending coronary artery lesion.

The ninety-eight patients who went home kept their pressure dressings in place overnight, mainly to remind themselves not to move the joint excessively. They were allowed to take shower baths the following day. Patients who lived over fifty miles from the hospital were advised to stay in the city overnight. The patients were advised not to do any strenuous lifting for two-to-three days and to gradually increase their activity.

Outpatient coronary arteriography can be performed safely in selected, stable patients, who are informed about the procedure. Performing the procedure quickly and with careful attention to detail is essential.

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## News From The Oklahoma State Department of Health

The Public Health Service has reported that in the US in 1980, 27,749 cases of tuberculosis were reported to state and local health departments. While this represents an increase of 80 cases from 1979, the rate per 100,000 population decreased to 12.3, which is 2.4 percent lower than the 1979 rate. Over the past 26 years, the number of reported cases and case rates have decreased four to five percent each year.

Oklahoma's 1980 preliminary data shows 333 new cases reported compared to 352 cases in 1979. Oklahoma's 1980 case rate was 11 per 100,000 population. Among the 50 states, the highest reported rate in 1980 was 19.0 per 100,000, to a low of 2.4 in New Hampshire.

Epidemiologic analysis of the 333 new cases in 1980 reveals that 41.4 percent were age 65 or older, 28.5 percent ages 45-64, and 21.9 percent ages 25-44. Only 2.7 percent were under age 14. A total of 62.8 percent were white, 16.8 percent Indian, 13.8 percent black, and 6.6 percent Asian. Of the 168

cases in persons over age 65, 12 were residents of nursing homes.

Two out of three cases reported were among males; thus, the average newly reported tuberculosis in Oklahoma is a white male over age 65.

The Tuberculosis Control Program of the Centers for Disease Control has commented that the steady improvement in case rates throughout the nation has slowed somewhat in the past three years due, in part, to the cases reported among the Southeast Asian refugees who have been relocated in the US. This does not represent a public health threat however, since all refugees are examined prior to entry to this country and those with evidence of disease are started on treatment at that time.

In Oklahoma in 1980, 22 of the 333 newly reported cases were identified as Asian. All such cases are under supervision. In addition, other refugees are receiving prophylactic treatment through the Tuberculosis Control Division of the state health department, local health departments, and private physicians. Physicians seeking additional information concerning TB control in Oklahoma should contact the TB Division, P.O. Box 53551, Oklahoma City, 73152, telephone (405) 271-4063. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR JUNE, 1981

DISEASE	June 1981	June 1980	May 1981	TOTAL TO DATE	
				1981	1980
Amebiasis	5	4	2	9	20
Aseptic Meningitis	10	6	19	41	22
Brucellosis	1	—	1	3	3
Encephalitis, Infectious	1	1	4	15	7
Gonorrhea (Use Form ODH-228)	1319	1143	1297	7440	6627
Hepatitis A	26	25	29	147	204
Hepatitis B	11	15	27	107	95
Hepatitis Unspecified	9	25	6	76	145
Malaria	1	1	1	4	9
Measles (Rubeola)	—	48	1	6	759
Meningococcal Infections	2	7	4	28	16
Pertussis	—	2	—	1	11
Rabies (Animal)	27	23	34	123	155
Rocky Mountain Spotted Fever	19	8	31	55	22
Rubella	—	1	—	—	3
Salmonellosis	25	24	40	153	102
Shigellosis	20	16	41	119	88
Syphilis (Use Form ODH 228)	11	13	9	90	55
Tetanus	—	—	1	1	—
Tuberculosis	36	46	31	161	168
Tularemia	6	4	4	12	5
Typhoid Fever	—	—	—	4	2



## Board Adopts Policy on Nurse Practitioners

The Board of Trustees held its quarterly meeting August 15, 1981, at the OSMA Headquarters.

One of the more important items on the agenda was consideration of a policy that establishes guidelines for the relationship between a member of the association and a nurse practitioner. The policy permits a physician to employ or collaborate with a nurse practitioner under his supervision. The policy statement as adopted is as follows:

**POLICY** — Should a physician member of the association wish to employ the services of and/or enter into a collaborative relationship with a nurse practitioner, he should be guided by the following statement.

The safe and effective utilization of the nurse practitioner requires that the nurse practitioner be under the direction of a physician for delegated medical functions. Such direction requires that the physician be immediately available for consultation either personally or through electronic means.

Communication and consultation with the physician should include that amount of supervision by the physician which will assure that the nurse practitioner is able to collect pertinent information, accurately gauge the data base, recognize the presence of abnormalities, and communicate with the physician concerning diagnosis and treatment. However, communication and consultation with a physician is not required where the nurse is functioning in a life-threatening emergency.

For the purpose of these recommendations. "Communication" means an exchange between the physician and nurse practitioner of information, both objective and subjective, relating to the health and/or disease status of a patient. "Consultation" means a form of deliberation and decision-making between the physician and nurse practitioner. When taking any action in response to a patient's medical condition, the final medical responsibility for that patient rests with the physician.

The Board authorized its wholly-owned insurance company — Physicians Liability Insurance Company, (PLICO) — to develop a health and accident insurance policy to be offered to association members, their families

and employees. The self-insuring program (if adopted) would include a "CHIP" feature developed by a Louisiana physician and strongly advocated by the Louisiana State Medical Association. The CHIP program offers to each insured a trust fund which can be used to cover the deductibles in the insurance plan, or can be retained by the insured as savings. A fully-developed plan will be submitted for approval by the board prior to marketing.

John McIntyre, MD, former Chairman of the Oklahoma Foundation for Peer Review's Board of Directors, gave a detailed report to the board on OFPR's appeal to the Department of Human and Health Services, requesting continued funding. (Details on page 320.) *Word was received on August 26, 1981 that OFPR's appeal was successful.*

The board took action supporting the Oklahoma Health Systems Agency's request that Medicare study the disparity between reimbursements to Medicare beneficiaries in rural and urban areas. □

## PLICO Board Meets

If actuarial studies do not change between now and the end of October there will be no increase in malpractice insurance premiums in 1982. The Board of Directors of Physicians Liability Insurance Company (PLICO) accepted report from its management firm, C. L. Frates and Company, Inc, which reflected no unanticipated losses and therefore suggest a stable premium for next year. While OSMA's sponsored program has incurred "shock" losses in the last 18 months (through carriers other than PLICO) they were not sufficient to distort the actuarial projections.

The OSMA Board of Trustees, meeting on August 15, 1981, did authorize PLICO to collect the third installment of the OSMA assessment that funded PLICO.

The company's board elected its officers for 1981-82. They are: C. Alton Brown, MD, President; David Bickham, Vice-President; Armond Start, MD, Secretary-Treasurer. The PLICO Board meets bi-monthly.



## Experts Sound Malpractice Crisis Warning

Insurance and malpractice-prevention experts are beginning to warn the medical profession that a second malpractice crisis is on its way. Increases in the cost of professional liability insurance brought on by more and bigger settlements and judgments in malpractice cases serve as an indication that the malpractice crisis which began in the mid-seventies is not over.

The American Medical Association's Board of Trustees warned that price trends in medical malpractice insurance should serve as a warning to physicians that a possible second malpractice crisis is on the way. Numerous states, even those with physician-owned professional liability insurance companies, have announced premium increases ranging from 34% in one year to a high of 360% spread over three years.

New York State has two professional liability insurance companies, one that is state-owned-and-operated, and a second that is physician-owned-and-operated. The state-owned company recently announced a 360% professional liability premium increase over the next three years, while the physician-owned company indicated the possibility of a 71% increase in premiums for 1982.

During its annual meeting in Chicago, the AMA's House of Delegates was warned that physicians should be aware that the increase in professional liability premiums, rather than the availability of insurance, might trigger what could be known as "the national medical insurance crisis, part II."

Recently, in Oklahoma, two multi-million-dollar judgments against physicians, along with several other smaller settlements and judgments, indicate an increasing likelihood of substantial professional liability losses. Oklahoma physicians, however, are currently paying one of the lowest professional liability insurance rates in the nation.

Figures released by the A. M. Best Company, an organization devoted to statistical reporting on the insurance industry, indicated that medical malpractice underwriting during the first quarter of 1981 was the worst recorded in the six years since the industry began breaking out medical malprac-

tice as a separate line of business. The same report, however, indicated that similar results were being found for all other property and casualty insurance lines.

The AMA report noted an increased involvement of physicians in risk control and prevention of medical malpractice. The delegates urged medical societies to continue to work with both physician-owned and commercial insurance carriers to develop educational programs in loss prevention. □

## OHSA Examines Medicare Reimbursement Policy

The Oklahoma Health Systems Agency has been examining the part B Medicare reimbursement policy of the state of Oklahoma. The study has focused on the rate differentials between the five geographic zones, the effect of the Economic Index on prevailing rates and the out-of-pocket cost to Medicare beneficiaries.

The study has revealed that the initial prevailing rates in the rural zone were established considerably lower than the urban zones. The study also shows that currently, medical charges in all zones have virtually equalized, but an inflationary cap (Economic Index) has been applied to the zones' prevailing charges. The same economic index percentage increase applied to the different zone rates has resulted in a considerable mathematical inequity in the rural zone.

The HSA study goes on to show that demographically 52% of the states elderly live in the rural zone. The effect of the lower rural rates and the economic index mathematical inequities result in significantly larger out-of-pocket costs to the Medicare beneficiaries when assignment is not accepted. The result of this dilemma is a considerable inequity to the consumers and the providers of rural health care.

The Oklahoma Health Systems Agency Board of Trustees adopted a resolution calling for a study to establish a single state zone with a state wide calculated prevailing rate. Thus far Medicare officials have expressed very little interest in addressing this problem, and the HSA is currently conducting public meetings around the state in an attempt to inform the public and gain support for their resolution. □



## Annual Meeting '82 Underway

Plans are already underway for the 76th Annual Meeting of the Oklahoma State Medical Association. Next year's meeting will be held at the Skirvin Plaza Hotel in Oklahoma City.

General Chairman of the event will be James D. Funnell, MD, Oklahoma City. The Scientific Program Committee will be headed by Hal B. Vorse, MD, and F. Daniel Duffy, MD, both of Oklahoma City. Gary Strebel, MD, Ray Cornelison, MD, and Randall Robinson, MD, all of Oklahoma City will direct activities of the Publicity Committee. The Specialty Society Committee will be under the guidance of Victor L. Robards, Jr., MD, Oklahoma City, and John B. Nettles, MD, Tulsa. Jodie L. Edge, MD, Norman, will be responsible for Physician Properties Committee. Lee A. Ison, MD, Midwest City, Faris W. Coggins, MD, Oklahoma City, and George H. Jennings, MD, Oklahoma City, will direct all Sports Events. The Entertainment Committee will be headed by Kenneth W. Whittington, MD, Bethany, Daniel R. Stough, MD, Oklahoma City, and Chester W. Beam, MD, Oklahoma City. Auxiliary Ac-

tivities will be handled by Mrs Gary Strebel, Oklahoma City, Mrs Jodie Edge, Norman, and Mrs Vance Robideaux, Oklahoma City.

In addition to those named above, James B. Pitts, Jr., MD, Oklahoma City, OSMA President, and John A. McIntyre, MD, Enid, OSMA President-Elect, will assist in coordinating the entire program. □

## Study of Osteoporosis Facilitated

A new clinic for treatment of osteoporosis occurring in post-menopausal females has been opened at the Oklahoma Memorial Hospital (OMH). Any post-menopausal patient with symptoms of back pain and/or history of fractures will be evaluated at minimal cost per clinic visit.

Osteoporotic patients will be treated with 25, hydroxycholecalciferol ("Calderol") at regular intervals and assessed by bone densitometry.

The clinic is located at OMH Medicine Clinic and meets at 12:30 PM each Monday. Physicians wishing to refer patients are invited to call (405) 271-5512 for additional information. □

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	300.00	181.50	208.50	286.50	385.50	418.50
	200.00	121.50	139.50	191.50	257.50	279.50
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## Foundation Funding in Doubt

Continuation of the Oklahoma Foundation for Peer Review's funding as an operational Professional Standards Review Organization is now in doubt. Following Congressional budget cuts, the Department of Human and Health Services began evaluating all operational PSROs and recommending defunding from those found to be inefficient.

Evaluation of the OFPR was carried out by the Dallas Regional Office of HHS and a determination was made that the foundation was not effective, and, therefore, that its funding should cease. After reviewing the evaluation and termination order, the foundation's executive committee voted unanimously to lodge an immediate appeal.

An appeal hearing was held July 30 in Dallas, and the foundation is currently awaiting the decision of the hearing officer.

The foundation's staff analysis of the evaluation indicated that it was erroneously prepared by the Regional Office of HHS, and that the foundation should have scored more than 1,800 points instead of 1,095, as evaluated by the reviewer. HHS had previously established a funding cutoff level of 1,105 points. PSROs scoring that number or above were automatically funded, while those scoring lower were slated for defunding, but with the right of appeal.

The foundation began reviewing Medicare and Medicaid hospital claims for necessity of admission, medical necessity of services rendered, and to certify length of stay in 1977, when HEW approved its OURs project as a special hospital utilization review demonstration. It was designated as a Professional Standards Review Organization (PSRO) in 1978.

Since beginning operations, the foundation has reviewed more than \$400 million in Medicare and Medicaid claims. Defunding of the Foundation's PSRO will mean that Oklahoma hospitals will have to return to the internal utilization review mechanism being used prior to 1977. □

## Old Warning Heard Again

Failure of health care personnel to wash their hands is the "single most important" factor in the spread of hospital infections, ac-

cording to a study published in the *New England Journal of Medicine*.

Two University of Washington researchers, Dr Richard K. Alpert and Francis Condie, found that compliance with the recommendation for handwashing after caring for patients was poor at two hospitals they studied.

As reported in the June 11, 1981 issue of the *New England Journal of Medicine*, "... physicians were among the worst offenders."

Handwashing to prevent the spread of infections is recommended by the Center for Disease Control and the American Hospital Association, and was one of the first infection controls instituted by physicians and hospitals nearly two centuries ago. □

## Law Book to be Printed

State laws of interest to physicians are being printed in a single booklet by the OSMA. The association is negotiating with West Publishing Company to print the book for distribution to Oklahoma physicians.

The book itself will contain approximately 100 pages and will include the entire medical licensure laws, mental health statutes, selected portions of the public health code, the Uniform Control Dangerous Substances Act, professional corporation laws and selected other statutes.

Publication of the book is a project of the association's Members Services Council and was authorized by the OSMA House of Delegates during its May meeting.

Current plans call for one copy of the book to be sent to each member of the state association. Additional copies will be available for purchase at the cost of publication price.

The initial mailing of a single copy to each member-physician will be underwritten as a joint project by the OSMA and the Physicians Liability Insurance Company (PLICO). □

## Physician Poetry Association Formed

The American Physicians Poetry Association has been formed in order to give physician-poets a forum in which to exchange views and ideas.

Please join us and send your poems for consideration for publication in the *Journal*. The dues are \$10 annually. For further information contact: Richard A. Lippin, MD, 230 Toll Drive, Southampton, PA 18966. □



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## Deaths

ORVILLE C. ARMSTRONG, MD  
1897-1981

Orville C. Armstrong, MD, a retired Tulsa general practitioner, died July 9. He began his practice in Tulsa in 1927, retiring in 1958. Doctor Armstrong was graduated from Northwestern University Medical School in 1925. Active in medical affairs, Dr Armstrong established a scholarship fund with the Tulsa County Medical Society in 1972, for continuing educational assistance awards for needy medical students. He was a Life Member of the OSMA.

JAMES D. REYNARD, MD  
1941-1981

James D. Reynard, MD, 39, Tulsa pathologist, died July 21, 1981. Doctor Reynard was born in Ft Riley, Kansas and was graduated from the University of Kansas School of Medicine in 1971. Following one year of practice in Klamath Falls, Oregon, Dr Reynard entered residency training in pathology. He was active in the Tulsa Pathology Society and last year was given the Tulsa Medical College's outstanding OB/GYN Attending Physician Of The Year award — the first pathologist so honored. □

## IN MEMORIAM

## 1980

<i>Tom S. Gafford, MD</i>	<i>August 4</i>
<i>Joseph J. Swan, MD</i>	<i>August 25</i>
<i>Milton J. Serwer, MD</i>	<i>August 28</i>
<i>Henry B. Jenkins, MD</i>	<i>August 28</i>
<i>I. F. Stephenson, MD</i>	<i>September 7</i>
<i>Emory E. Beechwood, MD</i>	<i>September 9</i>
<i>Paul B. Champlin, MD</i>	<i>September 17</i>
<i>Bernard Brock, MD</i>	<i>September 25</i>
<i>Lee Pullen, MD</i>	<i>October 6</i>
<i>Walter E. Sethney, MD</i>	<i>October 14</i>

<i>Ralph R. Nepveaux, MD</i>	<i>October 19</i>
<i>John M. Parrish, MD</i>	<i>November 8</i>
<i>Franklin D. Sinclair, MD</i>	<i>November 16</i>
<i>Henry K. Speed, MD</i>	<i>November 17</i>
<i>Joel T. Woodburn, MD</i>	<i>November 18</i>
<i>Frank R. Viereg, MD</i>	<i>December 6</i>
<i>Richard G. Stoll, MD</i>	<i>December 7</i>
<i>Robert C. Bowers, MD</i>	<i>December 31</i>

## 1981

<i>Athol L. Frew, Jr., DDS, MD</i>	<i>January 1</i>
<i>William R. Morris, MD</i>	<i>January 17</i>
<i>Geoffrey Kelham, MD</i>	<i>January 27</i>
<i>Charles G. Stuard, MD</i>	<i>January 30</i>
<i>Fred S. Watson, MD</i>	<i>February 3</i>
<i>Robert J. Terrill, MD</i>	<i>February 16</i>
<i>David J. Tomko, MD</i>	<i>March 4</i>
<i>Eugene F. Lester, Jr., MD</i>	<i>March 16</i>
<i>J. Samuel Binkley, MD</i>	<i>March 16</i>
<i>Gilbert L. Hyroop, MD</i>	<i>April 15</i>
<i>Leo A. Myers, MD</i>	<i>April 19</i>
<i>J. Holland Howe, MD</i>	<i>April 20</i>
<i>Harold M. McClure, MD</i>	<i>April 27</i>
<i>Sam W. Hendrix, MD</i>	<i>May 12</i>
<i>Roger C. Good, MD</i>	<i>June 16</i>
<i>Frederick G. Dorwart, MD</i>	<i>June 16</i>
<i>Joseph W. Kelso, MD</i>	<i>June 18</i>
<i>Rufus K. Goodwin, MD</i>	<i>June 25</i>
<i>Orville C. Armstrong, MD</i>	<i>July 9</i>
<i>James D. Reynard, MD</i>	

□

## FOR LEASE

Building converted for clinic. 1,600 square feet, one-half block north of Oklahoma Children's Memorial Hospital and across the street from VA Hospital in Oklahoma City. Call after 6:00 PM, (405) 842-3419.





## Medical Director

St. Anthony Hospital, Oklahoma City, Oklahoma, is currently accepting applications for the position of Medical Director. St. Anthony Hospital currently operates approximately 550 beds, supports an Active Medical Staff of over 250 physicians (600 total Medical Staff members), and maintains extensive medical education and continuing medical education programs.

The Medical Director is a full-time member of the hospital's top management staff and is responsible to and reports directly to the Chief Executive Officer. Medical Director is primarily responsible for planning, directing, and controlling the provision, development, and expansion of all Medical Services, Medical Education, Continuing Medical Education, research, and Medical Staff Support Services. The incumbent will also be responsible for the organization and direction of the hospital's physician recruitment and retention activities.

To qualify for this position the incumbent must first meet the criteria for Medical Staff membership. Must have a least five (5) years of experience in his clinical specialty practice, and it is desirable that he possess board certification. He should maintain membership in the State and National societies relating to his specialty and serve on committees or boards at these levels to enhance his contribution to the hospital and his own personal development. Demonstrated experience is required.

Inquiries should be directed to:

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Oklahoma City, OK 73101

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## Miscellaneous Advertisements

**INTERNAL MEDICINE AND FAMILY PRACTICE** physicians to join the staff of a 20-man multi-specialty group in Shawnee. Contact: Administrator, (405) 273-5801.

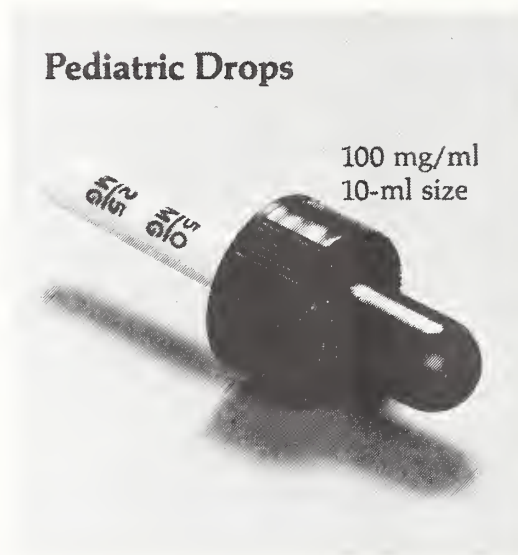
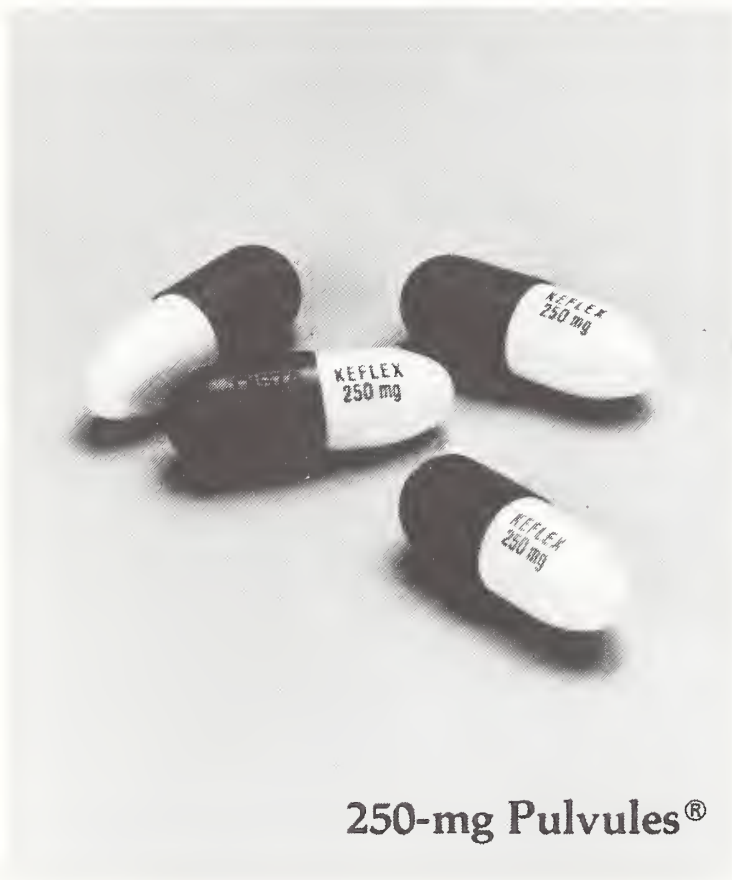
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## Competition Is Coming

Rain was falling in a light, misty drizzle. Except for the two hoboes and one hippie the freight car was empty, dry and relatively clean. On its way through the length of the car, the air was scented with diesel fumes, dry straw, unwashed bodies and the smoke from a cheap cigar. The train was on a slow-order, approaching a switching yard where some of its cars would join a Texas-bound train and others would continue west to California.

*First hobo to hippie:* "Well, kid, you better come to California with us and join our 'Free-Life Health Care Plan.' It's a sure thing. That deal in Texas is gonna sour. You know them Texas politicians ain't gonna let their medical laws set with the sun. They'll see to it that nobody but licensed stiffes can practice medicine down there. They don't really want no competition."

*Hippie:* "What makes you so sure you're gonna fly in California, man? Them cats on that Quality Assurance whatchamacallit are just *thinkin'* about repealin' all those laws that stifle free enterprise in the doctorin' business. They ain't actually done it yet."

*First hobo:* "Yeah, I know. But you got to play the odds, kid. And be ready. In this kinda deal, I'll put my chips on California every time. Them folks know that all those laws and rules don't do nothin' but raise the prices and let the docs keep their monopoly from comin' apart — and make it harder to get treated when you're sick."

*Second hobo:* "That's for damn sure, Bo. They're gonna bust-em up for sure out in California. And we're gonna get rich helpin' 'em. All this stuff about havin' to get a license to practice medicine is a bunch of nonsense and everybody knows it. Hell, there ain't nothin' that complicated about it. My maw learned how to do it from her maw and they cured a whole bunch of folks who was dyin' with everything from consumption to cancer. It's just a matter of knowin' which herbs and which poul-

tices to use for what. And I got all them recipes right here in my bundle."

*Hippie:* "That's right, pops. But once all them laws are repealed and all them licenses revoked the competition is gonna be a big scene, man. Big. How you gonna bend your pitch? Make your bag look better than some other cat's?"

*First hobo:* "Same damn way my great-granddaddy did it, boy. With music and singin' and testimonials from shills. And a painted-up panel truck full of loud speakers and liniment. That's why we want you to join up with us, kid. You play that guitar mighty pretty. And with our harmonicas and our singin' we'd have us a practice built up in no time."

*Second hobo:* "Hell, man. We'd have so many patients at the end of six-months we'd have to spend three or four days in every town in the county. We'd make so much money you could support your habit without stealin' or panhandlin'. You wouldn't have to be on the lam all your life."

*Hippie:* "Cool it, man. That ain't for conversation. I'll kick that, cold turkey, as soon as I start practicin' medicine."

*First hobo:* "Okay, kid. It's mums. But with all your experience you could give all our shot-treatments. You oughta be quick and slick. (*Turning to second hobo:*) Any of them herbs make up into shots, Bo?"

*Second hobo:* "If they don't, we can sure find a way to get some squeezins' out of some of 'em. Man, I can't wait. California here we come!"

*First hobo:* "Well, kid, we're pullin' into the yard. You got to make up your mind. You goin' south to practice solo — or do you wanna come to California and join up with our group practice?"

*Hippie:* "Man, look at that rain! I guess if you cats really want me an' you ain't jivin' me — I'll go to California with you. I'm needin' a fix and besides, I'd drown changin' cars in all that rain and it would ruin my guitar. Let's go. Group practice oughta be a gas!"—MRJ

On August 22 I was asked to participate in the dedication of the new McAlester Clinic. Other officers invited to attend this function included John McIntyre, MD, and Armond Start, MD. Governor Nigh, Thurmon Shuller, MD, who is chief of staff, and his brother E. H. Shuller, MD, senior partner in the clinic, also attended and participated in the dedication ceremonies. This outstanding edifice was built with growth in mind for it will accommodate 31 physicians. At present there are 19 doctors on the staff. After a tour of the new facility and an open house which followed the ceremonies, it was delightful to renew many acquaintances among the staff. The people of McAlester are fortunate indeed to have this fine clinic.



As most of you know Dr Start is the Medical Director of all correctional institutions in Oklahoma so I had asked him to arrange a visit of the medical facilities at "Big Mac." Not only were these plans made but he arranged a tour of the prison, including "The Rock." What a sobering experience this was. After being frisked by the guards, we were allowed to talk with individual inmates. It was interesting, that without exception, all that I visited with were satisfied with their medical care. It was gratifying to learn of the ten-bed hospital which is adequately staffed. Cleve Beller, MD, a 1943 OU graduate, and Francisco Quarugio, MD, a foreign graduate with a limited license, and at least 20 other personnel comprise the staff.

Average age of the 850 inmates in "Big Mac" is 27 years of age. All inmates are housed in single cells that appeared to be about 5 x 8 feet.

Total furnishings include a toilet without a seat, one tiny sink with one faucet of cold water only, one straight chair and a wall-hung bunk.

Different cell blocks house diversified groups of inmates — some for their own protective custody away from the general population of the prison; those with disciplinary problems; some destined for execution; and those on good behavior, whose cells include fans or small television sets. Finally there are the incorrigibles who are housed in "The Rock." These inmates leave their cells only twice a week for exercise. Their meals are served in the cells and there are no fans or television. Oddly enough, this block of cells is air conditioned which is necessary to maintain proper ventilation of this security partitioned cell-block.

Shortly after my return from McAlester, I read in our paper that the National Institute of Justice had used a \$118,948.00 grant to conclude that inmates of overcrowded prisons die, commit suicide, become ill and create disciplinary problems more frequently than those confined in private cells of at least 50 square feet. I wish the government had waited until after my tour of "Big Mac" — I could have told them this for nothing. Until my visit I have not been a strong advocate of prison reform but after standing in one or two of these cells, I feel that it is in our best interest to improve the facilities.

The question that I have tried unsuccessfully to analyze is why so many criminals return to prison. It would seem to me that one confinement in "Big Mac" would teach one a valuable lesson.

*J. B. Pitt*



# The Spectrum of Lymphocytopenia

STANFORD M. MORAN, MD

*A review of more than fourteen thousand consecutive complete blood counts identified 1,910 patients having one or more differential leukocyte counts. Of these, 192 or 10 per cent had absolute lymphocytopenia. In these lymphopenic patients, malignancy was the most common major diagnosis but other striking associations were found.*

## INTRODUCTION

The diagnostic relevance of a reduction in the number of circulating lymphocytes is for the most part unknown. The discovery of lymphocyte subclasses has suggested the attribution of certain disease states to an increase or decrease in subclass number or function.<sup>1-4</sup> Yet the utility of the total circulating lymphocyte count in the recognition of disease remains largely unexplored. Previously reported associations are shown in Table I. This study was undertaken to evaluate the usefulness of the lymphocyte count in a large number of patients having a broad spectrum of diseases.

## MATERIALS AND METHODS

All total and differential leukocyte counts performed in the Oklahoma Memorial Hospital hematology laboratories during a two-month period in 1979 were screened for cases having

Table I

Abdominal injury
Advancing age
Allergic reactions
Anesthesia
Antilymphocyte serum
Burns
Congestive heart failure
Corticosteroids
Cytotoxic drugs
Electric shock
Exhaustion
Extracorporeal irradiation of blood
Germ free environments
Immunodeficiency states
Infection
Malignancy
Malnutrition
Radiation therapy
Systemic lupus erythematosus
Thoracic duct drainage
Trisomy 21
Uremia
Vitamin deficiency

Table I Conditions reported previously in association with lymphocytopenia.<sup>5</sup>

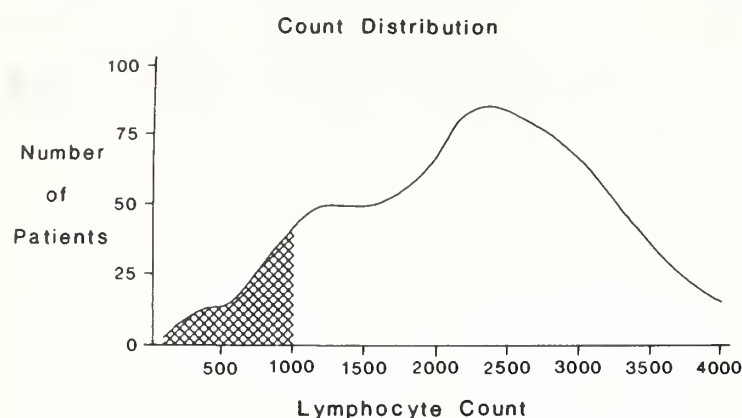


Figure 1. Smoothed curve of 1,910 patient population and the individual total lymphocyte counts.

lymphocyte counts below 1,000/cu mm. Total leukocyte counts were obtained with an electric counter with few exceptions. One-hundred cell differential counts were then made from a standard Wright-stained preparation. A total of 14,200 determinations yielded 1,910 patients having one or more differential counts. Of these, 192 (10%) were lymphopenic. The records of these 192 individuals were reviewed in detail. Subsequent extensions of this initial review are described below.

#### RESULTS

A smoothed curve of the count distribution for the entire population is shown in Figure 1. The average total lymphocyte count (TLC) for this population was 2,240/cu mm. In the lymphocytopenic study group, there were 86 males and 106 females. Their age distributions are shown in Table II. In Table III appears the number of persons in each major diagnostic category. Certain patients, with the exceptions

Table II

Ages	Male	Female	Total
15-19	1	8	9
20-29	15	24	39
30-39	11	17	28
40-49	17	16	33
50-59	8	23	31
60-69	21	11	32
70-79	9	4	13
80-89	4	3	7
TOTAL	86	106	192

Table II Age and sex distribution for lymphopenic patients.

Table III

Diagnosis	Number of Patients	Per Cent
ALCOHOLISM	12	6.3
complications*	3	
cirrhosis	5	
ascites	4	
ALLERGY	5	2.6
CHRONIC RENAL FAILURE	3	1.6
CONNECTIVE TISSUE DISEASE	8	4.2
rheumatoid arthritis	5	
systemic lupus erythematosus	3	
DRUG OVERDOSE	5	2.6
HEART	12	6.3
atherosclerosis	5	
congestive heart failure	3	
arrhythmia	4	
INFECTION	42	21.8
LUNG	3	1.6
asthma	2	
chronic bronchitis	1	
MALIGNANCY	54	28.3
single	50	
multiple	4	
PREGNANCY	16	8.3
premature delivery	6	
abortion (spontaneous)	5	
undelivered or term	5	
RENAL TRANSPLANTATION	6	3.2
TRAUMA	10	5.2
MISCELLANEOUS†	6	3.2
UNKNOWN	4	2.1
NO DISEASE	6	3.2
TOTAL	192	

Table III Major diagnoses and number of patients in each category.

\*complications include acute pancreatitis, two cases; withdrawal seizures, one case.

†seizures, Parkinson disease, cerebral palsy, and non-alcoholic pancreatitis, one case each; diabetes mellitus, two cases.

described below, could have been included in one of several categories. The condition related to the particular hospitalization studied was then selected as the major diagnosis. Separation of lymphopenic patients into two groups based on the severity of the lymphopenia, greater than or less than 500/cu mm, revealed no notable differences regarding comparable data.

The three major disciplines of medicine, surgery and obstetrics-gynecology made varying uses of the differential leukocyte count. On the surgical services some 21% of the complete blood counts contained a differential count; on medicine, 60% and on obstetrics-gynecology,



Table IV

Malignancy	Treated	Untreated
AML	1	0
CML	1	1
P VERA	1	0
DIGUGLIELMO'S	1	0
MYELOMA	3	0
HODGKINS	0	1
BREAST	10	2
CERVIX	0	7
ENDOMETRIUM	0	1
OVARY	2	0
VULVA	0	2
FIBROSARCOMA	1	0
COLON	1	0
STOMACH	2	0
PROSTATE	1	3
PULMONARY	1	8
TERATOCARCINOMA	1	0
TONGUE	1	0
TRANSITIONAL CELL	1	0
UNKNOWN PRIMARY	4	1
TOTAL	32	26

Table IV Type and treatment status of each malignancy.

25%. No patient received "lymphocytopenia" as a final diagnosis, and only in patients receiving chemotherapy was lymphopenia mentioned in the medical record, usually in the hematologic setting of pancytopenia.

Malignancy was the most common diagnosis, a finding in keeping with a previous report.<sup>5</sup> Fifty-four patients or 28.1% had one or more malignancies. Fifty had single neoplasms, and four had two. Twenty-six had disseminated disease. Sixteen had localized but inoperable disease; and nine who had been treated previously, but not within the year preceding, had no evidence of recurrence when the lymphopenia was noted. The type of malignancy

Table V

	decreased TLC	normal TLC
less than 2500 gms	11	36
greater than 2500 gms	5	182
		P<.0001

Table V Lymphocyte counts in mothers of small and normal birth weight infants. Analysis by chi-square.

Table VI

Patient	Age	Race	Sex	Evidence for Cirrhosis
1	48	B	M	AEP
2	41	I	M	AOV
3	64	W	M	AP
4	38	I	F	AEO
5	37	W	M	AV
6	56	W	F	AP
7	51	W	F	A
8	42	B	F	ABEP
9	28	I	F	APV
10	64	W	M	AEP
11	76	W	M	AO
12	49	W	M	APV
13	38	B	M	AP
14	60	I	M	AEPV
15	47	W	F	AE
16	42	B	F	AE
17	47	I	M	AEP
18	45	W	M	AEPV
19	46	W	F	AB
20	46	W	F	AV
21	61	B	F	ABEV
22	52	I	F	O
23	37	W	M	AE
24	72	B	M	B
25	44	I	F	AE
26	47	B	M	ABEP
27	53	W	F	O
28	38	W	F	AP
29	54	I	M	AE
30	67	MA	M	ABV
31	29	I	M	AE
32	49	W	M	A
33	62	W	F	AP
34	34	W	M	AP
35	64	W	F	AP
36	28	I	F	A

Table VI Clinical data on alcoholic patients with cirrhosis.

Abbreviations: Race B—Black

I—American Indian

MA—Mexican-American

W—White

Evidence A—ascites

B—biopsy

E—hepatic encephalopathy

O—observed at laparotomy, arteriography or by liver-spleen scanning

P—paracentesis performed.

*Stanford M. Moran, MD, was graduated from Washington University School of Medicine in 1978 and has just completed his residency training in internal medicine at the University of Oklahoma Health Sciences Center. He will be joining Stanford University's Division of Nephrology as a fellow in 1982. He is an Associate of the American College of Physicians and a member of the Oklahoma Society of Internal Medicine.*

## Lymphocytopenia / MORAN

and its treatment status are shown in Table IV. Among the 1,718 non-lymphopenic patients there were 201 or 11.7% who had a malignancy. These data suggest that lymphocytopenia and malignancy have a significant relationship ( $P < .0001$ , chi-square), one which may be independent of recent patient exposure to cytotoxic drugs or irradiation.

Among the lymphopenic patients there were 16 or 8.3% who were pregnant. If a pregnant patient had any other reported or recognized condition associated with lymphopenia, she was excluded from the major diagnostic category of "pregnancy." Of the patients with a normal TLC, 120/1,718 or 7.0% were pregnant. Since the frequency of pregnancy is nearly identical in the two groups, this suggests that lymphopenia may not be associated with pregnancy *per se*. However, more than two-thirds of the lymphopenic pregnant patients were aborting spontaneously or delivering a viable infant prematurely. To extend this initial observation the records of 934 live births at the same institution were examined. Of these infants, 77 (8%) weighed less than 2,500 grams at birth and were therefore premature or small for gestational age (SGA). The remaining 857 (92%) were then term infants or possibly large for gestational age. The available lymphocyte counts in the mothers of these 934 infants are shown in Table V. The average TLC for all mothers was 2,422. A notable incidence of lymphopenia is apparent in those women delivering the premature or SGA infants compared to those delivering infants of normal birth weight.

A small number of the survey group were

alcoholics, some of whom were known or suspected to have cirrhosis on the basis of their alcoholism. A clear association of lymphopenia with cirrhosis has not been described when leukopenia and all other reported conditions associated with lymphopenia have been carefully excluded. To investigate this possibility, the clinical records of all alcoholic patients hospitalized during the three years 1977-1979 were reviewed. Alcoholics with cirrhosis were specifically sought. Inclusion in this extended study group required: 1) a definite history of alcohol abuse; 2) no other reason — investigated or suspected — for hepatic dysfunction; 3) the absence of leukopenia; 4) no other known reason for lymphopenia; 5) cirrhosis — proven by biopsy, direct observation, or strongly suspected on the basis of ascites, with or without encephalopathy or varices. There were thirty-six patients who met these criteria. There were 20 males whose average was 50.1 years and 16 females averaging 51.1 years. Clinical data are shown in Table VI. The average TLC for this group was only 1,083 — markedly less than that of the 1,910 patient survey group. Of these 36 alcoholic patients, there were 25 (69%) who were persistently or repeatedly lymphopenic over a period of weeks or months. The relationship of the lymphocyte count to various parameters of hepatic function was studied. The TLC was plotted against direct and total bilirubin, SGOT, prothrombin time, and albumin. No correlation was noted when comparing one patient to another. However, from Figure 2, displaying data in which the patient serves as his own control, it is clear that as hepatic function improves, the total lymphocyte count increases toward or, in fact, to normal. Similar results were obtained for direct bilirubin and

Table VII

Patient	Blood TLC	Estimated Blood vol	Ascites TLC	Estimated Ascites vol	Method of volume Determination	Correction Factor	Corrected TLC
1	2141	5.0	90	20	Clinical	360	2501
3	1793	5.5	16	8	Autopsy	23	1816
10	756	5.0	31	5	Clinical	31	787
11	957	5.0	130	8	Clinical	208	1165
13	1014	4.8	1036	3	Actual volume	647	1661
15	437	6.0	504	4	Actual volume	336	773
19	520	5.0	220	20	Clinical	880	1400
27	880	4.5	140	5	Clinical	155	1035
29	370	4.8	15	5	Clinical	16	386

Table VII Ascites and blood lymphocyte concentrations, showing the "corrected" blood TLC, calculated as if the measured extravascular lymphocytes were resuspended inside the vascular space. Cell counts are per cum mm and volumes are in liters.



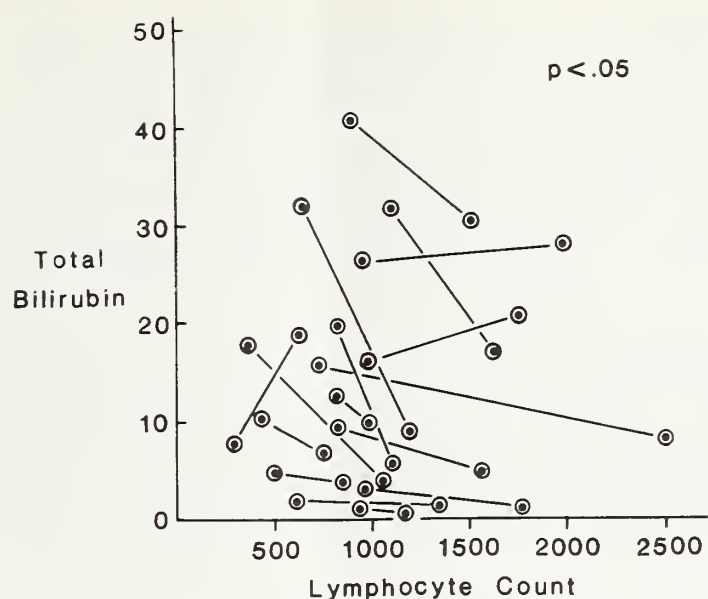


Figure 2. The connected circles represent a *single patient* at two different times during the course of the illness. The lymphocyte count and associated laboratory value were both drawn within one 24-hour period. Analysis by the signed rank test.

for SGOT. However, there was no correlation for increases in albumin or decreases in prothrombin time with improvement in the lymphocyte count, again using the patient as his own control.

One may ask whether there is another, non-vascular volume in alcoholics where measurable numbers of lymphocytes are distributed. In patients with ascites the answer is yes. Could lymphocyte sequestration or location in ascitic fluid account for the decrease in circulating blood lymphocytes? Certain assumptions are necessary to attempt an answer to this question. First, that ascitic lymphocytes can be accurately counted and that lymphocytes suspended in ascites fairly represent the numbers within the peritoneal cavity. Second, that the volume or weight of ascites can be estimated. Third, that blood volume can be estimated in these patients. Then the "correction factor" to be added to the blood TLC can be determined by calculating the total number of ascitic lymphocytes and mathematically resuspending them in the patient's estimated blood volume. Given these inherent difficulties, the data from Table VII provide what may be an upper limit to the estimate of sequestered cells. Unfortunately in only nine of thirty-six patients was an estimate of ascitic volume available. Although the number of patients is small, the data do suggest that lymphocyte location in ascitic fluid is inadequate to account for the degree of lymphocytopenia noted.

It is clear that lymphocytopenia is not rare and that it occurs in a wide variety of conditions. In this study an association of lymphopenia with malignancy is suggested. Earlier studies suggest a similar association for certain malignancies.<sup>6, 7</sup> In a report by Zacharski and Linman<sup>5</sup> on 178 patients with lymphocytopenia an incidence of malignancy of 43% was noted. They additionally compared 510 healthy subjects to 227 having a known but untreated gastrointestinal malignancy, finding an incidence of lymphopenia of only six per cent in the former group and 22% in the latter. It is beyond the scope of this report to discuss cellular resistance to tumors<sup>8</sup> or whether the lymphocytopenia is the result or cause of the emergence of a tumor. Yet the data presented herein and those previously published argue that lymphocytopenia bears a significant relationship to a coexisting neoplasm.

Pregnancy and immunological responsiveness are reportedly characterized by: 1) the stability of total lymphocyte counts; 2) a decreased T-cell and an increased B-cell percentage that "correct" after the 20th week of gestation; 3) retained maternal lymphocyte responsiveness to paternal (fetal) antigens; 4) maternal serum protectiveness associated with any or all of circulating antibodies, alpha fetoprotein, increased cortisol levels, estrogens and progestational agents.<sup>9</sup> The finding of a possible association between premature delivery in pregnancy and lymphopenia is intriguing. Studies of changes in total white cell counts and eosinophils have been reported,<sup>10</sup> but changes in lymphocyte counts have not previously been noted. In virtually all pregnancies plasma volume (PV) increases, changing an average of 40%.<sup>11</sup> If the *number*, and not the *concentration*, of circulating lymphocytes remains unchanged during pregnancy, then a dilutional lymphocytopenia would occur. If

$$\frac{\text{AVG TLC}}{(\text{PV} + \Delta\text{PV})} = \text{DILUTED TLC,}$$

$$\text{PV}$$

then one would predict from the data presented a new average TLC of  $2,240/1.4 = 1600$ . In fact,



the average TLC in pregnancy exceeded 2,400. Although knowledge of lymphocyte kinetics and partitioning is numerically sparse, it is tempting to speculate that either a redistribution of lymphocytes occurs or that perhaps the total body number increases. Although the differences in lymphocyte counts as shown in Table V are statistically significant, it should be noted that more than three-fourth of the mothers of small birth weight infants had normal lymphocyte counts. Studies of larger numbers of patients and subclass enumeration may be helpful.

Lucid and extensive studies on the hematologic changes of alcoholism have been reported by Eichner and Hillman<sup>12</sup> and others.<sup>13, 14</sup> Acute exposure to alcohol can reduce granulocyte and platelet numbers.<sup>15, 16</sup> Similar reductions in lymphocyte counts under controlled conditions have not been noted.<sup>15, 17</sup> Young<sup>18</sup> *et al*, reported on 32 chronic alcoholics with liver disease of varying severity. A moderate decrease in lymphocyte count was noted. Unfortunately the study was not well-controlled for other causes of lymphopenia. Bernstein<sup>19</sup> *et al*, reported a decreased T-cell percentage in one group of alcoholic patients. Total circulating lymphopenia was apparently not noted although data on the severity of the liver disease were not presented. Although cirrhosis was demonstrated by biopsy or direct observation in a minority of the alcoholic patients in the current study, the constellation of clinical findings in such persons is strong evidence for the presence of cirrhosis,<sup>20, 21</sup> and other causes of lymphocytopenia were carefully excluded.

The nutritional status of these patients was frequently poor, and lymphopenia and hypoalbuminemia have been linked to poor nutrition.<sup>22, 23</sup> It is conceivable that inadequate nutrition could produce a state of substrate or perhaps co-factor deficiency, limiting albumin or clotting factor synthesis.<sup>24</sup> Lymphocyte generation could be subject to similar limitations. The half-life of albumin has been estimated to be 20 days;<sup>25</sup> the half-lives of the vitamin-K-sensitive hepatic clotting factors VII, IX, X and II (prothrombin) are approximately 6, 20, 40 and 60 hours respectively.<sup>26</sup> The "half-life" of lymphocytes is more difficult to define because of lymphocyte heterogeneity, but large B-cells are thought to have a generation time of

6-to-48 hours. Smaller circulating B- and T-cells may divide as infrequently as every 5-10 years.<sup>27</sup> Thus, there is some overlap between cellular generation times and the protein half-lives mentioned above. If the major factors preventing normalization of albumin levels, prothrombin times or lymphocyte counts were strictly dietary, then as one of these parameters improves, perhaps so should the others. However, increases in lymphocyte counts were observed in the absence of improvements in albumin levels or correction of prothrombin times. This seems to suggest that non-nutritional factors may play a role in determining lymphocyte numbers in this clinical setting. Serum factors from both healthy and diseased livers have been reported to diminish *in vitro* responsiveness to mitogens.<sup>28-30</sup> *In vivo* functional deficiencies in cirrhotic patients have been demonstrated as well. Cutaneous delayed hypersensitivity responses were reduced or absent in one group of fifty subjects.<sup>31</sup> A correlation between lymphocyte responsiveness to both B-and T-cell mitogens and the circulating total lymphocyte count has been reported,<sup>18</sup> but neither the qualitative nor quantitative deficiencies were clearly related to the hepatic dysfunction. Lymphocyte function may be adversely affected by increased intracellular cyclic AMP.<sup>32</sup> *In vitro* exposure of human lymphocytes to alcohol at concentrations seen in intoxicated individuals activates membrane adenyl cyclase, increasing cyclic AMP.<sup>33</sup> Thus, the effects of alcohol consumption on lymphocyte number and function are likely multifactoral, possibly involving ethanol itself or other circulating substances.

Lymphocytopenia may be an "expected" finding in certain clinical situations, such as during cancer chemotherapy, irradiation, or in the presence of an acute infection. However, in perhaps one-half of the conditions described in this report or listed in Table I, lymphopenia may not be commonly "expected." The clinical result may be demonstrated by the following example. If 10% of patients having a complete blood count with differential are lymphopenic and half of these have some commonly recognized condition associated with a decreased TLC, then the rate of *unexplained* lymphocytopenia is five per cent. Thus, the odds that a given patient will *not* have an unexplained lymphopenia would be 0.95. Given 100 unselected patients then, the chances that no one would be unexpectedly lymphopenic



would equal  $(0.95)^{100}$  which is less than 0.01. Thus, lymphocytopenia may be one of the more common and easily recognized hematologic abnormalities. The total lymphocyte count is readily calculated, and as shown by the data reviewed or presented herein, lymphopenia is a noteworthy finding in many clinical settings.

#### ACKNOWLEDGEMENTS

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Application forms for Research Grants-in-Aid and Fellowships to be awarded by the American Heart Association, Oklahoma Affiliate, are now available in the Affiliate office, Rogers Building, 800 N.E. 15th Street, Oklahoma City, OK 73136. Standard forms must be utilized and it is the investigator's responsibility to be sure that the most recently published form is used. The schedule of awards follows:

Sept. 1, 1981 to Oct. 31, 1981 — Applications available.

Nov. 1, 1981 — Deadline for submission of required number of copies to the Oklahoma Affiliate

Nov. 1, 1981 to Apr. 15, 1982 — Completion of Affiliate evaluation forms

July 1, 1982 to June 30, 1983 — Funding of approved Grants and Fellowships

## Charles Pettigrew's Miraculous Discovery

DANIEL M. LANE, MD, PhD

*Pencillin was unavailable for general use until about 1950, but it may have been used in the United States as early as 1800.*

At its far eastern origin, US Highway 64 starts its course across the nation not far from Kitty Hawk, North Carolina, where the Wright brothers were first to fly an airplane. In the same area is the island where Virginia Dare was born in Sir Walter Raleigh's ill-fated colony. Moving westward it passes into an area best described as the southern shore of Albemarle Sound, now comprised of three far northeastern counties in the state of North Carolina. The middle county of the three, Tyrrell County, once included all three of the present counties and it is this county which is of interest because of a man named Charles Pettigrew. The author would have had no reason ever to travel to Tyrrell County if a family named Spruill had not settled there after first moving to Virginia from Scotland. The name Spruill is of little interest to the author except that it is his wife's maiden name and she had decided to seek the whereabouts of

her ancestors. Appropriately stimulated, the author went to Tyrrell County as a research assistant to his wife in her genealogical research.

Picking up US Highway 64 in Raleigh, North Carolina, the research director and her assistant proceeded easterly across the state of North Carolina toward Tyrrell County. As we reached the northeastern corner of North Carolina, we passed such well-known towns as Dordan, Plymouth, Roper, Pleasant Grove, Scuppernong, Creswell, Travis, and Columbia. Scuppernong is an especially interesting town because it is named after the Scuppernong grape, the only native grape in the eastern United States, which was first found in this region. Columbia, North Carolina is the county seat of Tyrrell County, but was a most unfruitful source of information about the Spruill's, so we left. Returning westwardly we passed Creswell, NC, deciding at that point to journey slightly south to Pettigrew Plantation, a restored plantation on the shores of a small lake named Lake Phelps. At the plantation, still in the process of restoration, the author was to discover an astonishing observation made by Mr Charles Pettigrew, the original owner of Pettigrew Plantation.

Mr Pettigrew, who was born the son of a physician in Pennsylvania around 1744, first worked as a teacher in the early days of North Carolina, where his family had moved after living in Pennsylvania and Virginia. Ap-



pointed a schoolmaster by Governor Josiah Martin, he moved to Edenton, North Carolina, on Albemarle Sound in 1773. Although raised as a Presbyterian, he became a lay reader in the Anglican Church, a position which led to his studying for the ministry and his ultimate ordination into the Anglican Priesthood in London in 1775. Following his ordination, he returned to the Edenton, NC area where he was to marry and remain for the rest of his life.

Shortly after his marriage, he acquired land on the northern shore of Albemarle Sound and started a new vocation as a plantation owner. Unfortunately, his wife died following the birth of premature twins, an event which led to his moving two years later (1788) south across Albemarle Sound into Tyrrell County where he started building what is now Pettigrew Plantation. Elected the first Bishop of North Carolina for the Protestant Episcopal Church of the United States (he was never consecrated at Philadelphia because two epidemics of yellow fever kept him from travelling there) he was to remain at the plantation serving as a minister to the people of the area. However, it was through skills learned from his father, specifically his training as a "quack" (an apparently reputable description of a physician in those times), that led to his making an observation of unusual significance.

In those days of limited transportation and even poorer communication, the only contact available with friends and relatives who weren't close neighbors was through hand-written correspondence, a method which Mr Pettigrew used very extensively. Fortunately his correspondence was saved by many to whom he wrote, and collected by his second wife, permitting their publication much later in 1971 as a history



A shoreline view of Pettigrew Plantation from the dock on Lake Phelps.

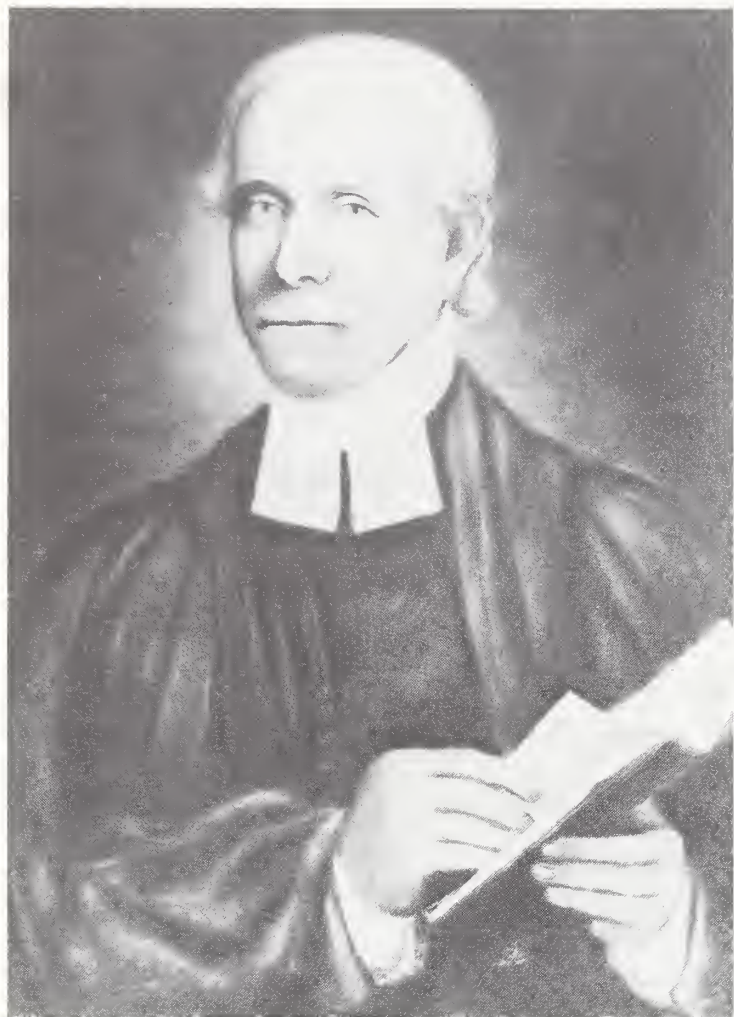


The renovated and refurbished plantation home originally built by Charles Pettigrew on the shores of Lake Phelps in Tyrrell County, North Carolina.



An old photograph of the Lake Phelps shoreline showing its many cypress trees and the plantation home in the background.





A picture of Charles Pettigrew, clergyman, plantation owner, "quack" doctor, and possibly the first person in the United States to record a response to the use of penicillin.

of Pettigrew Plantation. Although only a single copy of Volume I was available, I was able to purchase a copy of the Pettigrew Papers on my visit to the plantation, primarily to find clues about my wife's ancestors, the Sprui(e)lls. Lying in a motel bed at Elizabeth City, North Carolina that same evening, I read an astonishing observation made by Mr Pettigrew while treating one of his slaves for fever. An excerpt from that letter which was written August 20, 1799 to his friend, Dr Andrew Knox of Nixonton, North Carolina, follows<sup>1</sup>.

We have had on this side the most mortal fever ever known since the settlement of the place. The family it first appeared in, lost four out of nine, not one of whome (sic) escaped it. And most of the surviving have been reduced to the lowest extremity to recover. About as many more of those who visitted (sic) the family have also been taken with it, viz, 9 or 10, of whom but one has yet died, & I trust in

providence they may recover. It seems however to spread, for one of our Negroes has it. It is the slow nervous fever, & in the advanced stage, it has been highly putrid. I expended almost all my little stock of physic on them, & did every thing I could as a Quack; but the best remedy, I found *too late*, for some of them. It was not in any Medical Book, but a Newspaper & I think it one of the greatest discovery's ever made of the kind, as far as I have had opportunity to prove it. It is Ye[a]st. It has a miraculous power to quiet, & allay the agitation of the nervous system & the putrid flies before it. A couple of spoonfuls every 2 or 3 hours, or as the stomach of the patient will easily bear it is the Dose. The ye[a]st I have had an Opportunity of has been from New Cyder, in a state of fermentation — and it has succeeded well — Cyder & water I think has as good an effect to raise the pulse, as either wine or french Brandy, & I am very apt to conclude from its well known warming influence, it is superior to either [torn] — it is happy for the poor, who can so easily command it.

Several significant observations were included in Mr Pettigrew's comments to Dr Knox. He understood that yeast was involved in the process of fermentation, a fact which was not confirmed until 1864 by Louis Pasteur as one of his major contributions. Also he recognized that the liquid broth contained an inhibitory substance against infection, the observation first published by Dr Alexander Fleming in 1929.<sup>2</sup> It is obvious that Mr Pettigrew through great fortune had chosen to use a liquid broth which contained penicillin (or another antibiotic) produced by fermentation of the cider.

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Even more astonishing is his recognition that this was an effective agent for the treatment of febrile infections. It was 1931 before Dr C.G. Paine used a product similar to that first described by Fleming in the successful treatment of an eye infection caused by a foreign body.<sup>3</sup> It was still later, in 1941, when Dr Howard Florey, Dr Ernst Chain and their research group at Oxford successfully treated systemic infections in four children and one adult with penicillin for the first time.<sup>4</sup>

Mr Pettigrew's most surprising comment was about the importance of yeast in the process of producing penicillin. It was 1941 when Dr Norman Heatley of Florey and Chain's group recognized that the addition of boiled brewer's yeast increased the growth rate of the mold used to produce penicillin. Two years later, Dr Andrew Moyer while working with Heatley at the Northern Regional Research Laboratory at Peoria, Illinois showed that corn-steep liquor was more effective than yeast in increasing the production of penicillin. Corn-steep liquor is a by-product of the process of producing starch from corn and is a relatively impure product, often contaminated with both mold and bacteria.<sup>3</sup> Mr Pettigrew obviously was very fortunate in using a product (probably corn) for his cider which contained a mold capable of producing penicillin while at the same time adding yeast which increased the rate of production.

Pettigrew's observation about the miraculous power of fermented liquid broth to treat infection was not to be made and recorded again until over 140 years later. Dr Heatley of Florey and Chain's group commented about the miraculous nature of the first response to penicillin when crude extracts were used intravenously in 1941 on the first human patient. Despite the patient's subsequent death, the immediate response confirmed the suspected efficacy of the penicillin extract. With a much cruder method of preparation, Mr Pettigrew's cider must have produced an equally impressive response.

In summary, Mr Pettigrew appears to have made two very important comments in his letter to Dr Knox. First, he indicated that the first report in the United States describing the effectiveness of an antibiotic-containing liquid for treating infection was probably in an early American newspaper either shortly before or in 1799. Second, he clearly states that the first record of a patient in this country to be successfully treated with an antibiotic (probably



A reconstruction of the original slave quarters at Pettigrew's Plantation where the first person in the United States recorded as responding to penicillin may have lived.



A current view of the reconstructed grounds at Pettigrew Plantation.

penicillin) was a black slave on the Pettigrew Plantation in Tyrrell County, NC sometime in the summer of 1799. It was to be almost a century and a half before other Americans were to be successfully treated with antibiotics.

"His (Fleming's) distinction is that he was the first to be consciously aware that something of potential medical importance was happening. And he took action about what he saw."<sup>3</sup> The same can be said of Charles Pettigrew.

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Photographs are from the files of the North Carolina Division of Archives and History, Raleigh.



# National Institutes of Health Consensus Development Conference Statement

## CEA (Carcinoembryonic Antigen): Its Role as a Marker in the Management of Cancer

September 29 - October 1, 1980

A Consensus Development Conference was held at the National Institutes of Health September 29-October 1, 1980, to address issues concerning the role of the carcinoembryonic antigen (CEA) as a marker in the management of cancer.

At NIH, Consensus Development Conferences bring together biomedical research scientists, practicing physicians, consumers, and others with special interest or knowledge, in an effort to reach general agreement on the scientific evaluation of a medical technology. That technology may be a drug, device, or laboratory, medical, or surgical procedure.

For this Consensus Conference, the members of the panel were limited to biomedical and clinical investigators actively working in the field, clinically involved in patient care, and familiar with the technology under assessment. The panel met following formal presentations and discussions to assess the issues based on the evidence presented. This summary is the result of the panel's deliberations.

### INTRODUCTION

Human neoplasms may produce and release into the circulation a variety of substances collectively referred to as *tumor markers*. The oncofetal antigens comprise one particular group of markers, of which the carcinoembryonic antigen has been the most widely studied.

CEA is a glycoprotein of about 200,000 molecular size. It is expressed in significant amounts during embryonic life, especially by the large intestine, and postnatally by carcinomas arising from this site. CEA can be released by these tumors into the circulation to cause raised levels which may be measured by

sensitive radioimmunoassay and related techniques. Such methods have, however, demonstrated that small amounts of CEA are also present in the normal adult large intestine and in the circulation of healthy subjects.

Subsequent investigations have revealed that many epithelial-derived tumors at other sites may also express CEA and be associated with elevated circulating blood levels. Thus, it may be that the assay of plasma CEA has protean applications in oncology.

The Consensus Development Panel and members of the audience considered evidence to address the following questions:

1. Should CEA be used in cancer screening?
2. Is CEA helpful in cancer diagnosis?
3. What does CEA tell about the extent and outcome of cancer?
4. Is CEA helpful in monitoring cancer treatment?

### PLASMA CEA LEVELS IN HEALTH AND DISEASE

Using the presently available radioimmunoassay, 2.5 ng/ml is stated to be the upper limit of normal for plasma CEA levels. Values in excess of 2.5 ng/ml may be found in association with cancers, in particular those of the gastrointestinal tract, pancreas, ovary, lung, and breast. Similarly raised CEA levels may, however, be detected in cigarette smokers, in patients with benign neoplasms, and in 15-to-20% of subjects with inflammatory disorders such as ulcerative colitis, Crohn's disease, pancreatitis, liver disease, and pulmonary infections. Thus, raised plasma CEA values are not specific for cancer, although very high levels (for example, above 20 ng/ml) are highly suggestive of malignancy. It is important that serial assays of CEA be used in reach-



ing a clinical judgement, and not any single determination. The panel believes that each laboratory performing CEA assays should establish its own "normal" range. The recommended upper level of "normal" (2.5 ng/ml) in the population requires additional evaluation. Values cited in this document are based on the only radioimmunoassay commercially available at the time of the conference, the Hoffman-La Roche assay. Other assay systems may give different results.

#### CONCLUSIONS AND RECOMMENDATIONS

After listening to and discussing the evidence, the panel reached the following conclusions:

##### 1. Should CEA be used in Cancer Screening?

As indicated above, studies to date have revealed a major overlap in the distribution of plasma CEA values in subjects with inflammatory diseases and benign and malignant tumors of the gastrointestinal tract and of other sites, including breast, bronchus, urothelium, ovary, uterus, and cervix. Therefore, the plasma CEA assay does not possess the sensitivity (true-positive rate) or the specificity (true-negative rate) required to discriminate between localized malignant tumors and benign disorders.

Consequently, these data, together with the fact that raised CEA levels occur in smokers, vitiate the use of plasma CEA assays in the screening of an asymptomatic population to detect neoplastic disease. The use of CEA to assist with the surveillance of so-called high-risk groups, in whom CEA-producing tumors may develop, remains to be established.

##### 2. Is CEA Helpful in Cancer Diagnosis?

Few prospective studies have been effected with the aim of determining whether the availability to clinicians of a plasma CEA result would help in confirming a suspected malignancy in symptomatic patients. In addition, the caveats with respect to cancer specificity which limit the CEA test's applicability for screening (namely, that raised levels occur with smoking, non-neoplastic diseases, and benign tumors) are also pertinent with respect to assisting in reaching a diagnosis in a symptomatic population.

Therefore, we cannot recommend, based on the presently available data, that CEA be used independently to establish a diagnosis of cancer. However, in a patient with symptoms, a grossly elevated value, greater than 5-10 times the upper limit of the reference normal range for that particular laboratory, should be considered strongly suggestive for the presence of cancer in that particular patient. In this situation further diagnostic efforts to establish the presence or absence of cancer are indicated.

##### 3. What Does CEA Tell About the Extent and Outcome of Cancer?

Many workers have shown that preoperative plasma CEA levels correlate with the clinical stage of disease in several tumor types. Patients with colorectal or possibly bronchial carcinomas whose preoperative CEA levels are at the lower end of the spectrum have better survival rates than patients whose levels are in excess of 10 ng/ml.

It should be remembered, moreover, that the correlation between increasing plasma CEA levels and progressive cancer is not always perfect and that a normal CEA cannot be taken as evidence of localized disease or remission. About 15-to-20% of patients with proved malignancies never have elevated plasma levels. Such false negatives may be related to the degree of tumor differentiation. Poorly differentiated colorectal carcinomas, for example, tend to be associated with a reduced proclivity for CEA expression and release.

On the basis of the available data, we recommend that a preoperative plasma CEA value be obtained in patients with either colorectal or bronchial carcinomas and be used as an adjunct to clinical and pathological staging methods.

##### 4. Is CEA Helpful in Monitoring Cancer Treatment?

The regular and sequential assay of plasma CEA is the best presently available noninvasive technique for postoperative surveillance of patients to detect disseminated recurrence of colorectal cancer. As a monitor of colorectal cancer, CEA has been found to be elevated when residual disease is present or is clinically progressing. Following complete surgical removal of a colorectal malignancy, an elevated plasma



## CEA

CEA value should usually return to normal by six weeks. The failure to observe a reduction of a previously elevated preoperative CEA titer strongly indicates the presence of residual tumor. It is also possible to demonstrate in a substantial number of patients that CEA becomes significantly elevated before metastatic disease can be detected by clinical or other diagnostic measures. This information can be best achieved by obtaining plasma samples for CEA assay preoperatively, four to six weeks postoperatively, and thereafter at regular intervals as an integral component of overall patient followup. While slowly rising levels may be more indicative of local recurrence, rapidly rising values reaching very high levels, usually in excess of 20 ng/ml, are found most often with hepatic and osseous metastases.

For patients with metastatic tumor, the CEA assay may complement standard clinical measurements of tumor response to therapy. However, as in the case of other clinical laboratory tests, there are examples of discordance between the observed change in tumor mass and the corresponding CEA values. In patients with advanced unmeasurable tumor, especially colorectal carcinoma, CEA assays may offer the only index to measure changes in tumor burden. Although definite criteria to aid in deciding whether to continue or alter therapy in patients with unmeasurable tumor, based on serial CEA determinations, are not established, it appears that a steadily, markedly rising titer is indicative of a poor therapeutic response. In such circumstances, each physician should make an individual decision whether CEA monitoring will be of clinical value in the management of a particular patient.

It is important to remember that raised values, due to various causes such as smoking, intercurrent infection, etc, can be seen in patients where the tumor is clinically stable and that decreasing CEA values are not invariably a sign of successful therapy. Furthermore, a proportion of patients with recurrent or advanced colorectal cancer may not show elevated plasma CEA values.

The role of CEA in the postoperative and therapeutic monitoring of patients with other types of cancer, such as pancreatic, gastric, and gynecological neoplasms, is less convincing than it is for colorectal cancer. In patients with metastatic breast cancer or lung cancer, especially small cell carcinoma, and significant CEA elevations, changes in CEA titers may be of value in reflecting response to chemotherapy. More studies are required to evaluate the role of CEA determinations for initiating or changing therapy in tumor types other than colorectal cancer.

The Panel would like to stress the view that the clinical utility of a tumor marker may be related to the efficacy of a therapeutic regimen. Where earlier recognition of disease progression is not accompanied by appropriate therapy, no benefit is gained. On the other hand, as more successful treatments for the major tumor types become available, CEA and other tumor markers will be more useful in the management of cancer.

### ADDITIONAL NEEDS

The panel has identified several areas for future study which should improve the clinical utility of the CEA assay: the improvement of assay methodology; the evaluation of monoclonal antibodies to CEA for improving assay specificity; the establishment of a laboratory quality control system using a CEA standard preparation; the clinical study of CEA in combination with other markers; the diagnostic role of CEA in biological fluids other than plasma; the individual and collective comparison of CEA with other specific diagnostic modalities; the estimation of tumor CEA content in relation to plasma CEA values; and the study of the pathophysiology and metabolism of CEA.

This Consensus Conference on *CEA (Carcinoembryonic Antigen): Its Role as a Marker in the Management of Cancer* was sponsored by the National Cancer Institute, assisted by the Office for Medical Applications of Research, Office of the Director, NIH.

*Names of the members of the Consensus Development Panel are available from The Journal of the Oklahoma State Medical Association, 601 N.W. Expressway, Oklahoma City, OK 73118.*



Poor sanitation practices which affect public health are the target of the Food and Lodging Division of the state health department's Consumer Protection Service. Through the county health departments, this division conducts inspections of food service establishments, retail sellers of food, food manufacturers and wholesalers, food salvage, and lodging establishments in Oklahoma. In the 17 counties without health departments, the division provides inspection directly.

When inspectors suspect that a food or drug product is unwholesome, samples are taken and analyzed in the Oklahoma State Department of Health (OSDH) laboratory. After the test results are in, necessary steps are taken to see that the product is dealt with appropriately. To insure that Oklahoma consumers continue to be protected from unwholesome, misbranded, or adulterated food, drug, or medical device products, preventive programs are also maintained. The Consumer Protection Service is Oklahoma's liaison with the federal Consumer Product Safety Commission, so a part of these preventive activities centers around assisting with national recalls of such items.

Investigating consumer complaints is a vital function of the Food and Lodging Division,



## News From The Oklahoma State Department of Health

with an estimated 750 complaints handled annually. Similarly, food-borne illness occurrences are also checked to make several determinations regarding the incident, such as whether poor food handling practices were responsible or contributing factors, etc.

To assure uniform interpretation of food and lodging sanitation requirements and compliance with state laws and regulations, in-service training and consultative services are provided to the county sanitarians. Division personnel also consult with industry representatives and other state agencies and conduct the state licensure system for food, drug, hotel, and motel establishments. For information regarding any of these regulations, or if you have a complaint regarding any of the facilities mentioned, contact the Consumer Protection Service, Food and Lodging Division, telephone (405) 271-5243. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR JULY, 1981

DISEASE	July 1981	July 1980	June 1981	TOTAL TO DATE	
				1981	1980
Amebiasis	6	6	5	15	26
Aseptic Meningitis	7	9	10	48	31
Brucellosis	—	—	1	3	3
Encephalitis, Infectious	1	2	1	16	9
Gonorrhea (Use Form ODH 228)	1414	1366	1319	8854	7993
Hepatitis A	31	39	25	177	243
Hepatitis B	16	21	11	123	116
Hepatitis Unspecified	3	15	9	78	160
Malaria	—	1	1	4	10
Measles (Rubeola)	—	10	—	6	769
Meningococcal Infections	3	—	2	31	16
Pertussis	—	4	—	1	15
Rabies (Animal)	21	13	27	144	168
Rocky Mountain Spotted Fever	13	18	19	68	40
Rubella	—	1	—	—	4
Salmonellosis	50	39	24	200	141
Shigellosis	22	31	20	138	119
Syphilis (Use Form ODH 228)	14	8	11	104	63
Tetanus	—	—	—	1	—
Tuberculosis	34	18	36	195	186
Tularemia	1	9	6	13	14
Typhoid Fever	—	—	—	4	2

## Association Will Study Accident and Health Plan

The Board of Trustees has authorized Physicians Liability Insurance Company (PLICO) to study the feasibility of a health and accident insurance program for physicians, their families and their employees.

The proposed program would offer comprehensive physician and hospital coverage with standard deductibles and co-insurance features. It would also include a special "CHIP" feature that would offer the insured a financial reward for not over-utilizing the benefit plan.

CHIP-type insurance programs have received considerable publicity in the past year. The most notable was started by a teacher's group in Mendocino, California where 75% of the beneficiaries "profited" by saving either all or a portion of the \$500 "CHIP." In addition, the program's premiums have remained constant over the past three years while competing programs had premium increases of 25% and more.

The Oklahoma plan is still in the drafting stage but will be modeled after the California prototype. Physicians in the state will be surveyed to determine their interest in the proposal and will also be asked to offer suggestions to improve the benefit package.

The OSMA Board of Trustees will be presented the results of the study at the November board meeting. □

## Medical Legislation Effective October 1, 1981

The Optometry drug bill was signed by Governor Nigh thus bringing to an end a five-year battle in the Oklahoma legislature. House Bill 1058, as enacted, will allow an optometrist to use ocular pharmaceutical agents which are topically applied. The optometrist is to have satisfactorily completed courses in general and

ocular pharmacology at an institution accredited by the Council on Post-Secondary Accreditation or the United States Department of Education before he can use pharmaceutical agents. The optometrist has to provide to the pharmacist evidence of a current certificate.

The Oklahoma State Medical Association strongly opposed this legislation over the past years on the basis that optometrists do not have adequate formal education and, in particular, lack the clinical experience to use drugs and subsequently treat eye diseases. Copies of the law can be obtained from the Oklahoma State Medical Association by written or telephone request. Any suspected infraction of this law should be reported to the Oklahoma State Board of Medical Examiners.

DMSO "legalized" in Oklahoma. Effective October 1, 1981, neither hospitals nor the State Board of Medical Examiners can discipline a physician for using DMSO as an adjunct to recognized, customary or accepted modes of therapy, or alone in the treatment of any malignancy, disease, illness or physical condition. The patient so treated is required to sign a "written informed request" that may be obtained from the State Department of Health. The law includes disclaimers by the Food & Drug Administration, the American Cancer Society, the American Medical Association and the Oklahoma State Medical Association.

In an effort to stop some of the commercialization of DMSO, the legislation indicates that no person shall sell, or offer for sale at retail to consumers in this state, DMSO in quantities of less than ten gallons. A registered drug wholesaler is exempted from that requirement in that he can sell any quantity to a registered pharmacist, physician, dentist or veterinarian. Any person other than those mentioned who violates the ten-gallon restriction shall be guilty of a misdemeanor.

The State Board of Health will regulate the distribution, standardization and sale of DMSO for use within the State of Oklahoma to insure that the substance is not adulterated or misbranded within the meaning of this law.

### LEGISLATION PASSED DURING THE 1981 LEGISLATIVE SESSION

A fund to pay for sexual assault examinations has been established within the Oklahoma State Bureau of Investigation. The purpose is to provide to a victim of sexual assault a



free medical examination for the purpose of procuring evidence to aid in the investigation and prosecution of sexual assault offenders. Once an application by the victim of the assault has been accepted and approved, the Oklahoma State Bureau of Investigation is authorized to pay the cost of the examination. Any physicians who encounter this type of situation should contact the Oklahoma State Bureau of Investigation for assistance.

EMERGENCY MEDICAL TECHNICIAN  
QUALIFICATIONS AND EMERGENCY  
TRANSPORTATION REGULATIONS

Oklahoma now has a law on the books that spells out qualifications, requirements and regulations for the training and activities of emergency medical technicians. The same law contains standards for ambulance services throughout the State of Oklahoma. The Oklahoma state legislature passed House Bill 1339, as a very comprehensive program in the delivery of emergency medical services. An advisory council appointed by Governor Nigh spent a great deal of time reviewing all aspects of emergency care delivery in Oklahoma and presented the original draft of legislation. Several minor changes were made along the progress of the legislation, and gained the support of several organizations including the Oklahoma State Medical Association. The law appears to be a very satisfactory beginning in the development of a quality emergency medical delivery system. The Oklahoma State Department of Health will have oversight responsibilities in the implementation and operation of the law. □

## National Pancreatic Cancer Project

Isidore Cohn, Jr., MD, Director of the National Pancreatic Cancer Project, will furnish to physicians the latest information available on the diagnosis and treatment of pancreatic cancer. The project was funded by the National Cancer Institute in 1975 to stimulate research related to pancreatic cancer. Available are names and locations of individuals participating in advanced treatment protocols, identity of highly specialized facilities and those rendering charity care. Address of the Project is

1542 Tulane Avenue, New Orleans, LA 70112. □

## PLICO Continues Loss Prevention Work

Loss prevention or malpractice prevention is an important part of the activities of PLICO, the physician-owned professional liability insurance company created by the OSMA in late 1979. With the issuance of the first insurance policy in January of 1980, PLICO has had an ongoing loss prevention program for Oklahoma physicians, hospitals and hospital personnel.

At a recent meeting of the company's Loss Prevention Committee Ed Kelsay, OSMA legal counsel, reported that since January of 1980, he had traveled over 17,000 miles and had given 138 malpractice prevention presentations. Ninety-six of the presentations have been given to county medical societies and/or hospital medical staffs, with the remainder given to medical specialty societies, medical schools, and related medical organizations.

In addition to Kelsay's presentations, the OSMA and PLICO also sponsor the publication and distribution of a booklet entitled, "Professional Liability Medical-Legal Guide for Physicians." Nearly 6,000 copies of the booklet have been distributed in the last year-and-a-half. The book contains three major sections: malpractice prophylaxis (a series of one-paragraph rules of thumb to assist the physician to stay out of malpractice difficulties); important doctrines of law (an explanation of legal doctrines that may give rise to malpractice actions); and, a section on consent forms and model letters that may be of use to physicians in practice.

A new publication entitled, "Selected Oklahoma Medical Statutes" has just been ordered by the OSMA from West Publishing Company. This will be a special book published for the association and will contain almost all Oklahoma statutes or laws of interest to physicians. The book should be ready for distribution in late October.

It is anticipated that the book will be about 100 pages long and will contain Oklahoma statutes on such subjects as professional corporations, mental health, medical licensure, public health, controlled dangerous substances, health maintenance organizations, workman's compensation, and selected other statutes of interest. When the book is received from the publisher, one copy will be distributed free of

charge to OSMA members upon request. An announcement of the book's availability will be sent to all members.

An audio cassette tape is also under preparation by the Loss Prevention Committee for distribution to OSMA members and PLICO insureds upon request. The tape will contain a presentation by OSMA legal counsel Ed Kelsay. Availability of the cassette tape is now scheduled for mid-October.

Any OSMA member interested in obtaining a copy of the professional liability guide, the selected Oklahoma statutes, or the cassette tape should write to the OSMA at 601 Northwest Expressway, Oklahoma City, OK 73118, with a request.

Malpractice prevention presentations by Ed Kelsay are available to Oklahoma hospital medical staffs and county medical societies upon request. Arrangements for such presentations may be made by contacting Kelsay directly at (405) 843-9571. □

## Plans Progressing For OSMA Annual Meeting

Planning for the 1982 OSMA Annual Meeting, scheduled for May 5-8, 1982 is progressing. Site of this year's meeting will be the Skirvin Plaza Hotel in Oklahoma City.

At a recent meeting of the Planning Committee a tentative schedule of events was outlined and the subject of the scientific program was selected. Next year's program theme will be "The Great Debates: Controversies in Clinical Practice." Specific topics and speakers will be determined by a sub-committee of Hal B. Vorse, MD, Oklahoma City and F. Daniel Duffy, MD, Tulsa.

In addition to the regular business sessions of the Board of Trustees and the House of Delegates, a wide range of activities will be provided. These include auxiliary functions, sporting events, specialty society meetings, alumni association banquet and the OSMA Presidential inaugural.

General Chairman for the coming event is James D. Funnell, MD, Oklahoma City. □

## Why Take The Risk Of Self-Insuring Your Earning Power?

If you haven't insured your earning power you are self-insuring it. Can you afford that?

Think how an unexpected accident or illness could halt your income at any moment . . . and you'll realize how important **Disability Income Insurance** can be. Your **Oklahoma State Medical Association** sponsors an excellent group program which provides up to \$500 a week in benefits — benefits designed to help you and your family through periods of health and economic uncertainty — benefits of steady, continuing income!

Three plans are available. Plan L-65 pays accident benefits for lifetime. Sickness benefits are payable to age 65, or for a 2-year maximum period if disability begins between ages 63 and 70. Benefits are payable for 10 years based on being unable to perform every duty of your occupation; thereafter, based on being unable to perform the duties of any gainful occupation for which you are reasonably fitted.

Semi Annual Premium

Benefit payable after 8 days for sickness, first day for accidents.

Plan	WEEKLY INDEMNITY	UNDER AGE 30	AGE 30-39	AGE 40-49	AGE 50-59	AGE 60-69
L-65	\$500.00	\$301.50	\$346.50	\$476.50	\$641.50	\$418.50*
	400.00	241.50	277.50	381.50	513.50	418.50*
	300.00	181.50	208.50	286.50	385.50	418.50
	200.00	121.50	139.50	191.50	257.50	279.50
	100.00	61.50	70.50	96.50	129.50	140.50



For full particulars, contact JANE GRIFFITH

**C. L. FRATES & COMPANY, INC.**

Administrator, OSMA Group Insurance Plans

720 N.W. 50th Street, Oklahoma City, OK 73118 (405) 848-7661



## **OSMA Officers Attend Clinic Opening**

James B. Pitts, MD, OSMA President and John A. McIntyre, MD, OSMA President-Elect, attended the dedication ceremonies and open house for the new McAlester Clinic on Saturday, August 22, 1981. The multi-million dollar clinic located at Strong Boulevard and Van Buren Avenue was the location for the morning dedication service highlighted by a speech from Oklahoma's Governor, George Nigh.

At noon, some 200 persons attended a pre-open house banquet served at the Kiamichi Vo-Tech. Dr Thurman Shuller, McAlester Clinic Chief of Staff, introduced Dr Pitts and Dr McIntyre, after which each said a few words of congratulations to a fine clinic staff for their part in making the new medical facility a reality. The banquet was closed with a very touching introduction by Dr Thurman Shuller of his brother, Dr E. H. Schuller, one of the four original founders of the McAlester Clinic. □

## **ACP-OSIM Will Meet At Shangri-La**

The annual joint meeting of the Oklahoma Regional Meeting of the American College of Physicians (ACP) and the Oklahoma Society of Internal Medicine will be held at Shangri-La Lodge on Grand Lake, Afton, OK, November 5-7, 1981. Members of the Arkansas Society of Internal Medicine and the Oklahoma Chapter of the American College of Cardiology will also participate in this year's sessions.

Combining scientific presentations, socioeconomic discussions and social functions, the meeting will provide a balance of topics with both general and focal interest, presenting both local and national speakers. Among those appearing on the program will be: Paul S. Metzger, MD, Trustee and official representative of the American Society of Internal Medicine; John R. Gamble, MD, official representative of the American College of Physicians; Richard Miller, MD, and Glenn Cunningham, MD, both of Baylor University School of Medicine; Patrick A. McKee, MD, Duke University School of Medicine, Paul Cooper, Vice-President Prudential Health Care Plan of Oklahoma, Inc.; and, the Honora-

ble Dan Draper, Speaker of the House of Representatives, Oklahoma State Legislature.

The ACP has designated this continuing medical activity as meeting the criteria in Category 1 of the Physician's Recognition Award of the American Medical Association. Registration fee is \$25.00, students exempted. All interested physicians including residents and members of the armed services are urged to attend.

Further information may be obtained by contacting Kay Bickham, 601 NW Expressway, Oklahoma City, OK 73118 or by calling (405) 341-4147 or (405) 843-9571. □

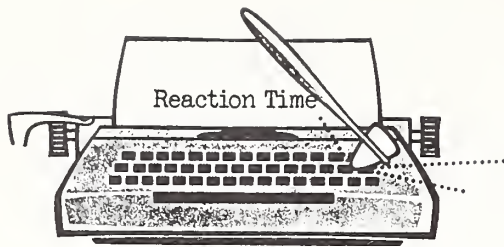
## **Reconciliation Bill Changes Keogh Plan**

After January 1, physicians with Keogh tax-deferred retirement plans can double their contribution from \$7,500 to \$14,000 annually. The increased allowance was approved by Congress as part of the recently passed tax bill. The 7.5% contribution limit on earnings was retained, but the eligible income maximum was raised to \$200,000. Contributions to Individual Retirement Accounts (IRA) was also liberalized. Up to \$2,000 can be deducted from taxable income as deferred income. □

## **Nominees for Admission Board Advanced**

Provost Clayton Rich and the OU Board of Regents have received a list of nominees to serve on the OU Medical School's Board of Admissions. Under an agreement with the University, OSMA submits the names of twenty-four or more physicians who are willing to serve and geographically representative of the state. The Regents select four from each congressional district.

Members of the Board interview all students qualified to enter the medical school, and participate with faculty and senior medical students in a selection process that chooses the entering class. There will be 176 selected for the class of 1986. □



June 8, 1981

Harris Riley, Jr., MD  
Editor  
The Journal of the Oklahoma State Medical  
Association  
601 Northwest Expressway  
Oklahoma City, Oklahoma 73118

Dear Dr Riley:

The recent article by Drs Lineaweaver and Barnes was read with some interest tho consternation regarding what in their minds confirms the diagnosis of Rocky Mountain Spotted Fever.

This boy presented with a non specific febrile illness that holds as much resemblance to a number of diseases as it did to Rocky Mountain Spotted Fever. The liver enzymes could well have been due to the erythromycin therapy.

On review of the referenced article in the New England Journal of Medicine I find no mention that one time proteus OX19 titers of 1/300 is diagnostic of Rocky Mountain Spotted Fever. I wonder if acute and convalescent titers for complement fixation were drawn or if a skin biopsy was performed to establish the diagnosis of rickettsial infection.

In summary this case represents a young man with a fever and a questionable rash that could have been due to any number of diseases including hypersensitivity to erythromycin. I presume the authors felt the diagnosis was established by a non-specific biological test, the Weil-Felix reaction measured at one point in time only.

From such scant data I would find it difficult to believe that a diagnosis of Rocky Mountain Spotted Fever was established in this case.

It would be interesting to know what diagnostic criteria were used in the seriological con-

firmed of the other nine cases reported between 1976 and 1978.

Sincerely:

G. Bryant Boyd, MD  
GBB/eb

Box J-1914  
U. of Fla. College of Med.  
Gainesville, Fla. 32610

Mark R. Johnson, MD  
Editor-in-Chief  
Journal of the Oklahoma State  
Medical Association  
601 N.W. Expressway  
Oklahoma City, Oklahoma 73118

Dear Dr. Johnson:

Thank you for forwarding Dr G. B. Boyd's letter to me.

Dr Boyd's careful reading of the article on Rocky Mountain Spotted Fever by Dr William Barnes and myself disclosed an error in citation. Dr Boyd then goes on to question the merits of our diagnosis in the case presented.

The misleading reference occurs in support of the statement, "On day five, significant serological confirmation was obtained; agglutination titers for Proteus OX19 were 1:320; Proteus OXK, 1:20; and Proteus OX2, 1:80." In the text as published, the reader is referred to item "14" in the bibliography.

The reference to "14" follows a reference to item "3", and, since the bibliography is numbered sequentially according to the order of appearance in the text, "14" is obviously out of place.

The draft of the article in my files refers to items "2, 4" where the article invokes "14". Article "2", a review of fatal cases of RMSF by Hattwick, *et. al.* (1), and article "4", a more general review emphasizing coagulopathies by Torres, *et. al.* (2), give identical criteria for serological justification of a diagnosis of RMSF. Hattwick's criteria were comprehensively and clearly stated, and were adopted by us in our chart review. His description is quoted in full:

"A confirmed case of RMSF was defined as a patient with one or more of the following: (1) a fourfold rise in antibody titer to spotted fever



antigen by the complement fixation (CF) or indirect fluorescent antibody (IFA) tests or a four-fold rise in *Proteus* OX-19 or X-2 agglutinin levels (the Weil-Felix test), (2) a single elevated CF titer (greater than or equal to 1:16), IFA titer (greater than or equal to 1:80), or *Proteus* OX19 or X2 titer (greater than or equal to 1:80) in a clinically compatible case, (3) rickettsial isolation from tissue or serum specimen, or (4) autopsy findings consistent with RMSF in a clinically compatible case.”(1)

Bradford (3), cited elsewhere in our article, also states that a “Weil-Felix agglutination titer of 1:160 was considered substantial, and a titer of 1:320 diagnostic . . .”

In reviewing our case as described in the article, I feel that the clinical picture of a prolonged, febrile illness occurring in August, accompanied by an evanescent, palmar rash appearing on the seventh day; hyponatremia, thrombocytopenia, elevated clotting studies, liver function abnormalities, and serology as already mentioned; and responding to tetracycline over a 72 hour period; is one of RMSF.

Dr Boyd offers erythromycin allergy as a possible explanation for our patient's presentation. Acute cholestatic hepatitis, associated only with the estolate form of erythromycin (4), presents initially with “nausea, vomiting, and abdominal cramps. The pain often mimics acute cholecystitis . . . These symptoms are followed shortly thereafter by jaundice . . . and elevated activities of transaminases in plasma . . .” (5) Our patient, as noted in the article, had no gastrointestinal symptoms. Unfortunately, my records do not specify the form of erythromycin administered. At any rate, the patient neither fit the picture of erythromycin associated cholestasis, nor does that entity account for the specific clinical and laboratory findings described.

We accepted a single elevated Weil-Felix value as sufficient serological confirmation in our series. Our standard seems amply supported in the literature reviewed. Of the nine patients analyzed, all had at least one such value; five showed either rising acute or convalescent titers. Complement fixation was done on only one patient, and was acutely positive with a titer of 1:18. Other physical and laboratory findings are summarized in the paper, and appear to readily fit the criteria of “clinically compatible” cases.

I would be interested to know if Dr Boyd feels that complement fixation values, serial Weil-Felix titers, and/or skin biopsies are

mandated for a diagnosis of RMSF; and if he would delay either the initiation or completion of definitive therapy because of serological findings alone. Nowhere in the reading I have done about RMSF have I found justification for stricter serologic criteria than the ones I have quoted.

Sincerely

William Lineaweaver, MD

## REFERENCES

- (1) Hattwick, MAW, Retalliau, H, O'Brien, RJ, Slutzker, M, Fontaine, RE, and Hanson, B: Fatal Rocky Mountain Spotted Fever. *JAMA*, Vol. 240, p. 1449, 1978.
- (2) Torres, J, Humphreys, E, and Bishu, AL: Rocky Mountain Spotted Fever in the mid-south. *Arch. Int. Med.*, Vol. 132, p. 340, 1973.
- (3) Bradford, WD, and Hawkins, HK: Rocky Mountain Spotted Fever in childhood. *Am. J. Dis. Child.*, Vol. 131, p. 1228, 1977.
- (4) Hewitt, WL: Full coverage of tetracyclines and erythromycin. *Drug Therapy*, p. 28, Feb., 1976.
- (5) Sande, MA, and Mandell, GL: Miscellaneous antibacterial agents. In Gilman, AG, Goodman, LS, and Gilman, A, editors: *The Pharmacological Basis of Therapeutics*. New York, Macmillan and Co., Inc., p. 1224, 1980.

*The error in the reference number which is mentioned in the above letter was an editorial oversight. The editors and staff wish to apologize to the authors and readers of the Journal for this mistake.* □

## International Microsurgery Group To Meet in Oklahoma City

The International Society of Reconstructive Microsurgery and the Department of Continuing Education of Presbyterian Hospital will conduct an international seminar on “Reconstructive Microsurgery: An In depth Symposium and Workshop” in Oklahoma City. The Sheraton Century Center Hotel will be the site of the meeting to be held May 24-28, 1982.

Co-chairmen for the course will be Dr Marcus Ferreira, San Paulo, Spain; Dr Joseph Hayhurst, Oklahoma City; Dr Bernard O'Brian, Melbourne, Australia; and Dr James Steichen, Indianapolis, Indiana.

Additional information may be obtained by calling or writing Hal Vorse, MD, Director, Continuing Medical Education, Presbyterian Hospital, Northeast Thirteenth and Lincoln Boulevard, Oklahoma City, OK 73104, (405) 271-6447. □

## Deaths

MARK R. EVERETT, PhD  
1899-1981

Mark R. Everett, PhD, former dean and director of the University of Oklahoma Health Sciences Center, died August 17, 1981. Doctor Everett was born in Slatington, PA and was awarded his PhD degree in medical sciences at Harvard University in 1924. He came to the University of Oklahoma School of Medicine in 1924 as professor of biochemistry and pharmacology. In 1947, he was named dean of the medical school and in 1956 received the additional title of director of the medical center. He retired in 1964.

Doctor Everett was a member of the Association of American Medical Colleges, the American Society of Biological Chemists, the American Chemical Society, the American Association for Cancer Research and the Alpha Omega Alpha.

He was the father of Mark A. Everett, MD, Oklahoma City dermatologist.

KHALIL AHMAD, MD  
1942-1981

Khalil Ahmad, MD, 38, Oklahoma City cardiologist, died August 22. Doctor Ahmad was graduated from Nish-tar Medical College, Multan, West Pakistan in 1967. He was a native of Gacian, India and a member of the American College of Physicians, American Heart Association, Royal College of Physicians of London and Royal College of Physicians and Surgeons of Glasgow. □

## IN MEMORIAM

1980

<i>Tom S. Gafford, MD</i>	<i>August 4</i>
<i>Joseph J. Swan, MD</i>	<i>August 25</i>
<i>Milton J. Serwer, MD</i>	<i>August 28</i>

<i>Henry B. Jenkins, MD</i>	<i>August 28</i>
<i>I. F. Stephenson, MD</i>	<i>September 7</i>
<i>Emory E. Beechwood, MD</i>	<i>September 9</i>
<i>Paul B. Champlin, MD</i>	<i>September 17</i>
<i>Bernard Brock, MD</i>	<i>September 25</i>
<i>Lee Pullen, MD</i>	<i>October 6</i>
<i>Walter E. Sethney, MD</i>	<i>October 14</i>
<i>Ralph R. Nepveaux, MD</i>	<i>October 19</i>
<i>John M. Parrish, MD</i>	<i>November 8</i>
<i>Franklin D. Sinclair, MD</i>	<i>November 16</i>
<i>Henry K. Speed, MD</i>	<i>November 17</i>
<i>Joel T. Woodburn, MD</i>	<i>November 18</i>
<i>Frank R. Vieregg, MD</i>	<i>December 6</i>
<i>Richard G. Stoll, MD</i>	<i>December 7</i>
<i>Robert C. Bowers, MD</i>	<i>December 31</i>

1981

<i>Athol L. Frew, Jr., DDS, MD</i>	<i>January 1</i>
<i>William R. Morris, MD</i>	<i>January 17</i>
<i>Geoffrey Kelham, MD</i>	<i>January 27</i>
<i>Charles G. Stuard, MD</i>	<i>January 30</i>
<i>Fred S. Watson, MD</i>	<i>February 3</i>
<i>Robert J. Terrill, MD</i>	<i>February 16</i>
<i>David J. Tomko, MD</i>	<i>March 4</i>
<i>Eugene F. Lester, Jr., MD</i>	<i>March 16</i>
<i>J. Samuel Binkley, MD</i>	<i>March 16</i>
<i>Gilbert L. Hyroop, MD</i>	<i>April 15</i>
<i>Leo A. Myers, MD</i>	<i>April 19</i>
<i>J. Holland Howe, MD</i>	<i>April 20</i>
<i>Harold M. McClure, MD</i>	<i>April 27</i>
<i>Sam W. Hendrix, MD</i>	<i>May 12</i>
<i>Roger C. Good, MD</i>	<i>June 16</i>
<i>Frederick G. Dorwart, MD</i>	<i>June 16</i>
<i>Joseph W. Kelso, MD</i>	<i>June 18</i>
<i>Rufus K. Goodwin, MD</i>	<i>June 25</i>
<i>Orville C. Armstrong, MD</i>	<i>July 9</i>
<i>James D. Reynard, MD</i>	<i>July 21</i>
<i>Mark R. Everett, PhD</i>	<i>August 17</i>
<i>Khalil Ahmad, MD</i>	<i>August 22</i>

□



## Calendar of Events

The Continuing Medical Education (CME) courses listed below will be sponsored by the University of Oklahoma Health Sciences Center. For additional information, contact the CME office at P.O. Box 26901, Oklahoma City, OK 73190 or by calling (405) 271-2350.

**October 15, 1981:** "Annual Infectious Disease Symposium." Physician-registration fee — \$50.00.

**October 24, 1981:** "Disaster Medicine"

**November 11-13, 1981:** "The Early Management of Pediatric and Adult Trauma"

Oklahoma City's Presbyterian Hospital's Department of Continuing Medical Education will present the courses listed below. The site for both meetings will be the Sheraton Century Center Hotel in Oklahoma City. Further details are available from CME Director, Hal B. Vorse, MD, Presbyterian Hospital, Northeast 13th Street at Lincoln Boulevard, Oklahoma City, OK 73104 or by calling (405) 271-5100.

**October 22-24, 1981:** "Sleep Disorders in Children"

**November 13-15, 1981:** "Advanced Cardiac Life Support Provider and Provider Recertification Courses," "Advanced Cardiac Life Support Instructors Course" and "Basic CPR Course"

The American Academy of Facial Plastic and Reconstructive Surgery, Inc. is sponsoring the following program in Birmingham, AL. Registration fee is \$420.00. Details may be obtained from D. B. Stough, III, MD, Program Director, Doctors Park, Hot Springs, AR 71901 or by calling (501) 624-0673.

**February 3-4, 1982:** "International Advanced Hair Replacement Symposium"

The Oklahoma State Medical Association will convene its annual meeting in Oklahoma City at the Skirvin Plaza Hotel.

**May 5-8, 1982:** "OSMA Annual Meeting." □

### FOR LEASE

Building converted for clinic. 1,600 square feet, one-half block north of Oklahoma Children's Memorial Hospital and across the street from VA Hospital in Oklahoma City. Call after 6:00 PM, (405) 842-3419.

## Book Reviews

**Guide to Fitness after Fifty.** Edited by Raymond Harris and Lawrence J. Frankel. New York: Plenum Press, 1977. 356 pages with illustrations. Price \$24.50

In the preface, it is pointed out that this book presents basic and applied research data, authoritative advice and tested techniques for professional workers who want to learn more about physical exercise, fitness and health for persons over age 50 and all who seek to become more physically and mentally fit. The editors and contributors believe that physical activity and exercise following the principles and practices outlined in this interdisciplinary volume can improve the health and quality of life by increasing endurance, cardiovascular fitness, strengthening the musculoskeletal system, improving mobility, posture and appearance and relaxing emotional tensions.

The book contains 27 chapters, which are arranged into four sections. The first, "Perspectives on Exercise and Aging," surveys the fundamental problems and relationships of exercise to aging and health. It provides a well-balanced overview of the various elements of aging and the effect of environment on the speeding-up or retardation of the aging process. For many years, the unfavorable influence of inactivity on old age has been recognized by physicians. In view of the increased lifespan, it now becomes a public health problem.

Section II, "Evaluation and Physiology of Exercise," presents objective scientific and medical evidence that reasonable improvement in fitness and other bodily functions may be achieved by persons of all ages who follow well-designed exercise and relaxation routines for at least 30 minutes, three-or-more times weekly. The contributors present data indicating the beneficial effects of exercise on the fitness of the skeletal, cardiovascular and muscular system. This section contains the results of well-designed longitudinal studies that show that, while aging *per se* cannot be changed, its effect on bodily functions can be mitigated.

"Motivation and Planning" describes the effects of living and cultural habits on a person's health. Only some 10 percent of those older than 60 years of age engage in some form of regular exercise. Constitution, heredity, and faulty health habits contribute to the accelera-

tion of the aging process. The authors discuss the requirements for establishing exercise programs that are successful over long periods.

Section IV, "Practical Exercise and Relaxation," concerns the importance of conditioning and relaxation. It presents physical exercise and relaxation techniques which have helped men and women over age 50 develop better physical, mental, musculoskeletal and cardiovascular fitness. These preventive and therapeutic programs include jogging, calisthenics, stretching, relaxation, and other types of appropriate exercises. The authors point out that minor ailments of the locomotor system restricting activities can have very unfavorable consequences on the cardiovascular system, unless this is recognized and treatment is undertaken.

This book gives a very satisfactory account of the available knowledge on physical fitness in persons 50 years of age and older. It can be recommended for those concerned. *Harris D. Riley, Jr., MD*

**Differential Diagnosis: The Interpretation of Clinical Evidence.** Third edition. Edited by A. McGehee Harvey, James Bordley III, and J. A. Barondess. Philadelphia: W. B. Saunders Company, 1979, 738 pages. Price \$28.50.

The bulk of this book is made up of clinical pathological conferences with discussions of the diseases at hand and related ones. The purpose is to give guidelines for recognition of various diseases and how to delineate one from the other.

The introduction to the book is likely to be most appreciated by experienced physicians. The student and the inexperienced physician may be puzzled or perhaps offended by what it says about laboratory and other tests. The authors say that tests should be carried out only after careful consideration, selectively and with due regard to their sensitivity and sources of error, an approach rarely observed today. The authors stress that opinions should not be based solely on laboratory findings. Laboratory results are truly meaningful only when correlated with clinical observations.

In addition to a teaching tool, this book, in a certain sense, also serves as a critical evaluation of American medicine. *Harris D. Riley, Jr., MD* □

## Miscellaneous Advertisements

**IMMEDIATE OPENING FOR FAMILY PHYSICIAN.** Association with clinic in Yukon, Oklahoma. Excellent opportunity. Contact the clinic administrator (405) 354-6681.

**RANCH FOR SALE,** 410 acres, three miles N-NW of Konawa, grass, trees, six-room frame house, machine shed, tank house, barn (needs repair), fenced, seven-acre lake. \$245,000. (405) 341-2467.

**FAMILY PRACTICE OPPORTUNITY.** College community in Oklahoma needs additional family practitioners. Local lay group could provide assistance in establishing practice. Send resume to Key A, c/o *The Journal, Oklahoma State Medical Association*, 601 NW Expressway, Oklahoma City, OK 73118.

**FOR SALE:** Castle 999-C Autoclave. In excellent condition. Call (405) 329-5168 after 5:00 PM.

**COMPHEALTH - LOCUM TENENS -** Physicians covering physicians, nationwide, all specialties. We provide cost-effective quality care. Call us day or night. T. C. Kolff, MD, President CompHealth, 175 W. 200 S., Salt Lake City, UT 84101, (801) 532-1200.

**FOR SALE:** Biofeedback equipment used five or six times. Autogen 60 temp feedback, Autogen 1100 myofeedback, Stress Management training program tapes, Brudzinski relaxation tapes both male and female voices. All for \$1,200.00. Contact John R. Adair, MD, Inc., 1001 15th, N.W., Ardmore, OK 73401.

**MEDICAL DIRECTOR, MD,** certification in psychiatry or eligible, two years experience in mental health setting, for seven county Community Mental Health Center. Salary negotiable. Contact Northeast Oklahoma Human Development Service, 105 West Canadian, Vinita. (918) 256-6476. □



## The Right Words

Words can't express my appreciation.

There just aren't words to tell you how much your help means to me.

I wish I could find words which would adequately express my gratitude.

Plain words can't possibly tell you how grateful I am for your thoughtfulness.

Mere words can't describe the pleasure you have given me.

I am sure these statements are familiar to all of us. We've heard them and used them probably more than once or twice. When spoken, they carry the implication of an apology. An apology for not having written them — or expressed them in some other way — much, much earlier. Too often, the claim that words are inadequate is an alibi which even we know is a lie. But what else can we say when we haven't taken the trouble to say "thanks"?

Saying "thank you" is always the least and often the only thing we can do to acknowledge a gift, a kindness, a gesture of caring, an act of friendship, a service, a compliment. Saying "thank you" is a valuable exercise wherein we acknowledge a benefaction and express our humbleness simultaneously. It is an act which nourishes our spirit and strengthens our soul. And yet it is an act we all seem disinclined to commit. For example:

Have you ever thanked your patients for the

compliment they have paid you by selecting you as their physician?

Have you thanked those who work with you in caring for patients for the loyalties and sacrifices they have so willingly shared?

Have you told your spouse how much you appreciate the understanding and the tolerance which your unpredictable schedule often requires and the loneliness it creates?

Have you ever thanked your children for succeeding in life's most difficult task — growing up to be good human beings, in spite of your undependable presence and interrupted guidance?

Have you ever said "thanks" to your colleagues for their willingness to assume your responsibilities and allow you an opportunity to relax and recuperate on a holiday?

Of course there are many other people in our lives who deserve our expression of thanks, and these are only a few of our most deserving and least acknowledged benefactors. Some of them may have been waiting for years to hear you speak those inadequate words.

But in truth, words are never inadequate, and the right words are easy to find, even easier to pronounce. They are simple and short. They bestow riches upon the speaker and the listener alike. They are rarely misspelled and never misunderstood. They promote humility, greatness and love. They are magic. They are

...

Thank you.

MRJ

## What We in Medicine Have To Be Thankful For

In hard times, we've got it easy — comparatively speaking. While most other regions of the country are reeling under the impact of inflation, high interest rates, and high unemployment, we in Oklahoma are blessed with unprecedented prosperity and growth. Though the effects of the nation's faltering economy are not entirely unfelt here, we are much better equipped than most to rebuff the hardships that ensue from such conditions. This is due, in large part, to the wealth of natural and human resources that characterize this state. As citizens, let us be thankful for the fortuitous combination of entrepreneurial skill and nature that have enabled us to enjoy the good life.

As physicians, let us be thankful for the environment in which we practice. The Sun Belt has become increasingly attractive in the last few years as a place to live and work. This is evident from the population shift documented by the 1980 census. Oklahoma's burgeoning business opportunities, reasonable cost of living, and good climate, together with the reputation of its citizens for warmth and hospitality, have spurred a rebirth of the pioneer spirit that settled this great state and opened it to development. As an environment in which to practice, Oklahoma offers the second lowest liability insurance rates in the nation, minimal state intrusion into the affairs of the medi-



cal profession, funds and facilities for medical research and practice, and a strong and dedicated medical association committed to serving its members' needs and interests.

As we reflect on our own good fortune, let us not forget to give something back in return. We can start by taking a close look at the effects that cutbacks in federal funding will have on medical services provided to the needy in the state. While much of the budget trimming is designed to eliminate wasteful programs and practices, some of it is bound to reduce worthwhile services that many disadvantaged citizens could otherwise not afford. Just as the business community is being asked to take up the slack in certain areas by increasing charitable contributions, so should we in the medical community begin to ask ourselves how we can take up the slack in health-related areas. Hippocrates put it this way in *Precepts*, chapter 6:

Sometimes give your services for nothing, calling to mind a previous benefaction or present satisfaction. And if there be an opportunity of serving one who is a stranger in financial straits, give full assistance to all such. For where there is love of man, there is also love of art. For some patients, though conscious that their condition is perilous, recover their health simply through their contentment with the goodness of the physician.

A happy and bountiful Thanksgiving to all of our members and their families.

J. B. Pith



# Postoperative Wound Infection in Orthopedic Surgery

WILLIAM A. MILLER, MD

*Orthopedic surgery can be performed  
satisfactorily without prophylactic antibiotics.*

*Most postoperative orthopedic infections  
present after the patient leaves the hospital.*

*Staphylococcus aureus infections often  
masquerade as inconsequential  
hemorrhage or hematomas.*

## ABSTRACT

A classification of postoperative wound infection based on outcome is demonstrated by using the author's 3,668 consecutive operations, excluding superficial operations and cases with wounds, previous infection, or methyl methacrylate. Prophylactic perioperative antibiotics were not used in this seventeen-year study. Five patients (0.14%) developed some permanent damage from the infection. There was a combined infection rate of 0.41% (fifteen patients), combining those patients who required unexpected surgery with those

who incurred permanent damage from the infection. The gross infection rate was 2.4% (eighty-eight patients). Seventy-three of these infections healed uneventfully without residual or further surgery. An analysis is presented of some fallacies and erroneous conclusions from several articles reporting beneficial effects from prophylactic antibiotics.

## INTRODUCTION

Postoperative wound infections vary from the inconsequential to the disastrous. Failure to categorize this difference may have accounted for some confusion in articles in regard to the use of prophylactic antibiotics. Fogelberg<sup>1</sup> *et al* inadvertently imply this in reporting that the difference in the percentage of their patients requiring surgical drainage of postoperative infections was not statistically significant in their prophylactic antibiotic and control groups.

Another cause of confusion in some reports is an improper definition of postoperative wound infection, resulting in fallacious inclusion or exclusion of cases.

## DEFINITION

A postoperative wound infection in orthopedic surgery is best defined as a clinical condition caused by the action of pathogenic

microorganisms in the surgical site. It is usually characterized by drainage or abscess formation. It may develop at any time after a surgical procedure. A positive culture must be obtained to prove the presence of infection. Tolerable exceptions to these requirements are few. Cases yielding cultures of bacteria which are usually nonpathogenic should be called infections only if drainage or tissue reaction is persistent. This situation frequently occurs in conjunction with reactions to foreign material, particularly nonabsorbable sutures or fixation and replacement devices. Anaerobic bacteria are found infrequently in orthopedic wound infections and may be difficult to isolate. X-ray studies may show changes diagnostic of infection in certain cases where cultures are not obtained, such as intervertebral disc space infections.

This definition is broad enough to avoid exclusion of any case with an operative wound with drainage culturing pathogenic organisms at any time, no matter how bland the appearance or clinical course. It is narrow enough to prevent inclusion of cases with trivial interruption of wound healing with normal skin flora, such as stitch abscesses or blistered wounds.

#### CLASSIFICATION

When a patient who has sustained a postoperative wound infection is dismissed from treatment after final rehabilitation, the infection falls naturally into one of three categories. First the case is worrisome but healing occurs without residual disability from the infection. Second, the infection requires one or more unanticipated operations, but then heals without

residual. Third, the infection produces permanent damage by lowering the quality of the result expected from the original operation, and may require additional surgery as well.

#### MATERIAL AND METHOD

In order to demonstrate the use of this classification, study was made of the infections following 3,668 operations performed by the author from 1962 through 1978, inclusively.

Because of specific differences, all cases with compound fractures or open wounds, cases with previous infection or active infection at the operative site, or cases in which methyl methacrylate was used were not included in this total. This surgeon's method of treatment of compound fractures remains unchanged since it was reported earlier in this publication<sup>2</sup>. Superficial operations involving only the skin or subcutaneous tissue were also deleted. No other operations were excluded. All clinical records were reviewed for the final compilations.

Until 1970 the cases were from the category of general orthopedics. After 1970 the cases were almost equally divided between general orthopedics and foot surgery.

No patients in this review received any prophylactic perioperative antibiotics.

During the period of this study, a notebook was kept in the same drawer as the current charts for dictation on both hospitalized and office patients to try to assure accurate recording of cultured wounds, suspected infections, and postoperative infections. Periodically this notebook was reviewed, and the course of each case brought to its conclusion.

No postoperative wound infections in these 3,668 operations in this seventeen-year-period have been deleted for any reason. All infections met the requirements of the definition.

#### RESULTS

Eighty-eight patients developed a postoperative wound infection in this series of 3,668 operations. This was a gross infection rate of 2.4%. Five patients had some residual from the infection for a permanent damage rate of 0.14%. Ten patients were in the unanticipated surgery group, for a rate of 0.27%. Thus fifteen patients were in either the unanticipated surgery or permanent damage categories for a combination rate of 0.41%. Seventy-three cases were in the worrisome group, a rate of 1.99%.

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*William A. Miller, MD, was graduated from the University of Oklahoma School of Medicine in 1947 and has been certified by the American Board of Orthopedic Surgery. In addition to his private practice Dr Miller is clinical professor of orthopedic surgery at his school of graduation. Among his medical affiliations are the American Orthopedic Foot Society, American Academy of Orthopedic Surgery, Clinical Orthopedic Society, Mid-Central State Orthopedic Society and American College of Surgeons.*



The five cases which developed infection with permanent damage consisted of a lateral ankle ligament repair (some narrowing of the ankle joint); repair of the anterior cruciate and medial collateral ligaments and medial meniscectomy (some restriction of knee flexion); open reduction of the proximal phalanx of a little finger (some loss of flexion of the proximal interphalangeal joint); open reduction of the distal phalanx and repair of the extensor tendon of an index finger (fibrous ankylosis of the distal interphalangeal joint); and open reduction of the acromioclavicular joint (subluxation of the acromioclavicular joint). Of these five cases, only the patient with the knee ligament repair required further surgery, consisting of removal of nonabsorbable suture material from the medial collateral ligament area.

In the unanticipated surgery group, three patients required sequestrectomy (femur, tibia, metatarsal); one of these patients required a second sequestrectomy (femur). One patient required removal of a staple (pubic symphysis). One surgical drainage was necessary (hip). One above knee amputation stump required revision. One patient required reoperation for a secondary hemorrhage (medial collateral ligament of knee) and a second procedure for removal of nonabsorbable sutures. Three other patients required general anesthesia for removal of nonabsorbable sutures (patellar ligament, tarsal navicular, and Achilles tendon).

Infections resulted in a total of thirteen extra operations in this entire series of cases.

In this seventeen-year-period, thirty patients (34% of the cases with infection) developed infections while still in the hospital. Fifteen (50%) of the inpatient-care infections occurred after surgery for fractured hip, and seven (23%) followed back surgery. Only eight cases (27%) without hip or back surgery developed infections while still in the hospital. Two patients not requiring unanticipated surgery were readmitted to the hospital because of infections.

The time elapsed after surgery when infection presented was more than two weeks in forty-six patients (52%), more than four weeks in twenty patients (23%), and more than six weeks in eleven patients (13%). In the patients with permanent damage, two infections (40%) presented more than two weeks postoperatively. In the unanticipated surgery group, six infections (60%) presented more than two weeks after surgery.

Two patients in this series had no drainage. One developed a painful thickening of the fascia lata with a positive culture ten months after hip-nailing. The other had an intervertebral disc space infection.

One patient is included in this series who had a previous infection with a different organism.

Sixty-eight patients (77%) of the eighty-eight with infections cultured coagulase positive *Staphylococcus aureus*. Seven of these sixty-eight cases cultured other organisms as well.

Thirty-four patients (39%) required separation of the wound edges or incision of premature bridging epithelium not in an operating room setting.

No patient in this period first developed an infection more than one year after surgery. Two patients had a flare up of infection more than one year after healing from the original infection.

When infection was suspected, an antibiotic was started while awaiting results of culture and sensitivity studies. Antibiotic therapy appropriate to the case was then instituted.

All infected wounds in this series were documented as healed with complete epithelialization except for two hip-fracture patients who died a month after surgery with small wounds unhealed. One of these had a severe stroke the day after surgery, and the other was in the hospital with terminal Hodgkin's disease at the time she fractured her hip.

#### HEMORRHAGE AND HEMATOMA

Hemorrhage and hematomas play a role of varying importance in some postoperative wound infections, and were involved in thirty-two cases (36%) in this series of eighty-eight infections. Fourteen patients had hematomas (two with secondary hemorrhage, one of whom also had some sanguino-purulent discharge), fifteen had sanguineous discharge, and three had sanguino-purulent discharge. None of these patients had received any anticoagulants. In the patients with hematomas, twelve of the fourteen produced *Staphylococcus aureus* on cultures. Of the eighteen patients with sanguineous or sanguino-purulent discharge, thirteen had *Staphylococcus aureus* involvement. On several occasions it was felt that the infection might be producing the hemorrhage, rather than the infection developing in a preexisting hematoma. *Staphylococcus aureus*



does produce the enzyme, staphylokinase, which is "fibrinolytic by activating the plasminogen system,"<sup>3</sup> so there is some basis for this supposition.

Hematomas are one of the predisposing factors of infection. Predisposing factors of hematoma formation include wound closure before release of the pneumatic tourniquet, persistent oozing from bone or areas of extensive dissection, postoperative trauma from internal-fixation pins, excessive early activity abuse by the patient, and anticoagulant therapy. A hematoma may become infected from exterior contamination, but even a negative culture from a hematoma does not prove that bacteria were not entrapped at surgery in the depths of the wound if the case develops a positive culture later. Actually, the exact time of arrival of bacteria in a hematoma is not really important: a surgical hematoma containing pathogenic bacteria at any time constitutes a postoperative wound infection.

One article<sup>4</sup> cites data showing a statistically significant reduction of the rate of postoperative wound infections in hip-fracture surgery with the use of prophylactic antibiotics (nafcillin), but if the infected hematomas are properly combined with the counted infections, the figures are not statistically significant in showing any benefit obtained from the prophylactic antibiotics.

#### DISCUSSION

Some reports classify infections as superficial or deep. Deep is certainly an accurate term for infections traced to the bone by surgery or radiologic techniques. Beyond that, the criteria for differentiating superficial from deep infections remain unexplained. Many of the worrisome cases presented here were trivial, and probably were superficial infections. Significant drainage was rarely present for more than a few days. However, final epithelialization was occasionally quite slow, which could indicate deeper involvement than was apparent. With the exception of one intervertebral disc space infection, the six patients in this series who developed osteomyelitis or septic arthritis proved by surgery or x-ray studies are all in the unanticipated surgery or permanent damage groups.

Several articles<sup>5-7</sup> claiming statistically significant reductions in postoperative wound in-

fections obtained by the use of prophylactic antibiotics, report series of cases where most of the operations were performed by resident physicians. The conclusions probably are not valid for the trained and experienced orthopedic surgeon.

This paper contains the many uncontrolled variables inherent in a personal, experiential report. However, many of these are common to some double blind studies, such as numerous auxiliary personnel in the operating rooms. One potential source of error is the possibility that some patients with late wound infections did not return for follow-up. This is unlikely, since patients will not tolerate a draining wound and most orthopedists are reluctant to take over another doctor's complicated case.

It must be stressed that fever, systemic symptoms, inflammation, taking a culture, starting an antibiotic, and extended hospitalization do not individually or collectively constitute the clinical condition of postoperative wound infection.

#### CONCLUSION

This surgeon has found no tangible evidence in the orthopedic journals for believing that the patients in this series might have received any benefit from prophylactic antibiotics. The large number (66%) of infections not becoming apparent while the patients were still hospitalized might indicate that some statistics reported by hospital infection committees may be invalid. The presence of hemorrhage or hematomas in 36% of the infected cases in this series indicates that infections may be disguised, which could delay the initiation of proper therapy, particularly in those infections produced by *Staphylococcus aureus*.

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707 N.W. 13th Street, Oklahoma City, Oklahoma 73103.



# Obesity: Recent Developments in Concepts of Pathogenesis and Treatment

STEPHEN R. NEWMARK, MD

*Although newer pharmacological agents may be helpful in the induction and maintenance of weight loss, current treatment modalities consist mainly of dietary restrictions combined with educational and behavioral programs; selected patients may respond to surgical intervention.*

Human obesity is a result of many factors, and in any one individual, it is frequently impossible to isolate one inciting cause. Inevitably, obesity results from an excess of ingested calories in relationship to utilized calories. Approximately 3,500-5,000 calories may be stored as one pound of adipose tissue. Thus, if an individual consumed 100-150 calories per day in excess of his requirements for one year, a weight gain of 10 pounds would result.

The essential problem in the etiology and treatment of obesity is to isolate those conditions which determine the food consumption of an individual and the ultimate disposal of metabolic fuel.

## FOOD INTAKE

Food intake is determined by numerous parameters including taste, appearance, psychological factors, social factors, spacing of meals, nutrient absorption, and circulating substrate levels.<sup>1-5</sup> Food intake also may be

controlled by the central nervous system; however, in the human, this currently is not resolved. Also it has been suggested that obese individuals fail to have adequate satiety systems and thus, do not stop eating in response to appropriate stimuli.

One could evoke any single component or combination of factors in the control of eating behavior to explain the etiology of obesity. To date, however, it has been extremely difficult to implicate a single etiological cause for human obesity.

## BIOLOGICAL FACTORS IN THE ETIOLOGY OF OBESITY

Some recent studies have focused attention on altered thermogenesis in obesity. It appears that obese subjects process substrates more efficiently than non-obese individuals and thus, fail to lose energy in the form of heat. Possible biochemical explanations for this phenomenon include the following:

a. *Decreased "Waste Shunts"* – Some investigators have postulated that obese individuals fail to take excess fuel and metabolize it in biochemical shunts that dispose of the fuel without conversion to triglyceride. A possible example of this condition is glycerol phosphate regulation of oxidation and phosphorylation. The "glycerol-phosphate cycle" transfers hydrogen from reduced nucleotides to intra-mitochondrial flavoproteins with a P/O ratio of two compared to a ratio of three when hydrogen is metabolized within the mitochondrion.<sup>6</sup>

Therefore, oxidation of reduced Nicotinamide Adenine Dinucleotide Phosphate (NADPH) is characterized by increased heat

production and decreased stored energy by this route. The increased levels of glycerol phosphate which occur in normal people as a result of excessive caloric intake would thus promote loss of the excess calories as heat. The loss of this cycle in obese individuals would prevent loss of calories as heat. Recent studies, however, have failed to demonstrate a consistent abnormality in glycerol phosphate metabolism in obese patients.<sup>7</sup>

b. *Futile Cycles* — Obese subjects may not "lose" energy via "futile cycles." Futile cycles are opposing biochemical sequences which do not allow a net energy gain because of a formation of Adenosine triphosphate (ATP) in one metabolic pathway combined with utilization of ATP in the opposing sequence.<sup>8</sup>



It has been proposed that obese individuals may lack these mechanisms for "wasting" fuel as heat, although the significance of futile cycles in the etiology of obesity is currently unknown.

c. *Brown Fat* — Brown adipose tissue is able to convert excess calories into heat by a currently unknown mechanism. Although brown fat consists of only one percent of the total adipose tissue mass of the adult, it is possible that defects in brown fat-induced thermogenesis could contribute to human obesity.<sup>9</sup>

d. *The Sodium Pump* — Because a significant amount of the basal energy expenditure is expended in pumping sodium and potassium ions across cell membranes, a defect in this system could be a factor in human obesity. The sodium-potassium, ATPase system is the enzyme that is associated with the pump. Recent studies have shown that there is reduced activity of the red-cell sodium-potassium pump in human obesity. The significance of this finding in the pathogenesis of obesity is unknown.<sup>10</sup>

#### TREATMENT

##### DIETARY

*Standard Hypocaloric* — The routine approach for treatment of obesity is to instruct the patient in a standard hypocaloric "balanced" diet. These diets range from 800-1,800 calories per 24 hours depending upon the age, height, sex and activity of the patient (20 calories/k ideal body weight).<sup>11, 12</sup>

Diets containing less than 1,000 calories may be deficient in vitamins and minerals and thus may need to be supplemented.

The success rates of these approaches are: 1) weight loss of 20 pounds, 5-20% and 2) weight loss of 40 pounds, 1-5%.

Long-term success (20 pound weight loss for two-to-five years) is approximately 1-2% or less.

*Low Carbohydrate (Ketogenic Diet)*<sup>11</sup> — This type of diet may present under various names; Dr Atkins, Mayo Diet, etc. Basically, the rationale is:

1. Patients gain weight by eating carbohydrates; therefore, one should restrict carbohydrates to less than 80-100 grams per day.
2. Carbohydrate restriction leads to ketosis which may suppress appetite. This diet can also cause fluid and electrolyte losses, hyperuricemia, and various side-effects, including headache, irritability, insomnia and weakness. The long-term success rate is not known, but probably approaches that of the standard hypocaloric diet. When this diet permits the dieter to "Eat all the animal fat you wish," hyperlipidemia may result.

*Scarsdale Diet* — This diet is basically a low-carbohydrate, low-fat diet. It consists of a week of menus with variations for patients who desire ethnic foods, vegetarian diets or low-cost foods. A weight maintenance plan even has allowances for one cocktail per day. The Scarsdale diet may not provide adequate calcium and vitamins. Information on its efficacy is lacking.

*Cambridge Diet* — This plan has the dieter drinking several times a day a powder mixed with water. The diet provides 330 calories and 31 grams of protein per day, in addition to the Recommended Daily Allowance for vitamins and minerals. The Cambridge Diet includes only 44 grams of carbohydrate, an amount which may induce ketosis. Although the short-term weight loss is promising, long-term weight maintenance results are not available.

*Total Starvation* — This approach when combined with fluid, electrolyte, and vitamin supplementation can be very effective either as a short-term outpatient method or as a long-term inpatient treatment.<sup>14</sup> Problems related to total fasting include fluid and electrolyte depletion, protein-wasting, hyperuricemia with renal insufficiency and mental changes.



Long-term weight maintenance of a 40-pound weight loss probably approaches 1-2%.

*Protein-Sparing Modified Fast* — This is now the most publicized and one of the most popular of all diets.<sup>15</sup> In its original form, it consists of 40-60 grams of protein or amino acids per day with 20-40 grams of carbohydrates, electrolyte and vitamin repletion. Patients develop ketosis and metabolic acidosis.

A "liquid-protein" diet is different from a protein-sparing modified fast in that carbohydrate is omitted, protein quality is variable and adequate supplementation with vitamins and minerals may be lacking. A significant side-effect observed mainly in young females who have lost significant amounts of weight on a "liquid protein diet" is ventricular arrhythmia leading to sudden death. The cause of this is obscure but may represent a lack of essential nutrients or myocardial degeneration.<sup>16</sup>

Although the protein-sparing modified fast is efficacious (60% lose 40 pounds) it must be considered an experimental diet. It should be administered with informed consent and probably should be given under standard protocol conditions. If the protein-sparing modified fast is carefully administered and monitored, it can be an effective therapy in previously resistant cases.

*Defined Formula Diet* — This approach is scientifically identical to the standard hypocaloric diet; however, it is given as a liquid to increase compliance. The results of this approach are better than standard hypocaloric diets but are still not as effective as the protein-sparing modified fast (60% lose 20 pounds and 20% lose 40 pounds).<sup>17</sup> The long-term maintenance weight loss is unknown. When combined with behavior modification techniques, this may prove to be a safe and effective approach for short-term weight loss.

#### SURGICAL

Two surgical approaches have been utilized to increase weight loss without specifically inhibiting food intake.

*Jejunal-Ileal Bypass* — This procedure essentially bypasses part of the jejunum and ileum by surgically shortening bowel continuity.<sup>18-19</sup> This produces an iatrogenic malabsorption syndrome with rapid weight loss. Interestingly, when calculations of caloric intake and expenditure are performed, most of the weight loss is secondary to decreased in-

take as opposed to decreased nutrient absorption. Patients should be selected for this procedure only if they meet all of the following criteria:

1. 100% in excess of ideal weight.
2. Failure to lose weight with standard dietary measures while under supervision for two years.
3. Normal psychiatric findings.
4. Absence of renal failure, cardiac failure, hepatic failure, active liver disease. This procedure should be done only by a trained team of physicians working with extensive facilities. Patients should understand the risks of the procedure which include:
  - a. Active liver disease (etiology unknown — risk, 20%).
  - b. Arthritis (probably related to circulating immune complexes).
  - c. Electrolyte and trace metal depletion.
  - d. Severe diarrhea (5-10 stools per day).
  - e. Alteration in body appearance with secondary psychological changes.
  - f. Renal stones (oxalate stones secondary to increased oxalate absorption).

The total mortality risk of this procedure is 3-5%. The risk of severe morbidity is 20%. Although many patients respond with significant weight loss, improved psychological status, and increased work potential, many authorities now feel that there are no indications for this procedure.

*Gastric Bypass or Gastroplasty Procedure*<sup>20</sup> — The *gastric stapling* procedure is a surgical alteration of the stomach in which part of the stomach is stapled together to decrease the reservoir capacity to 30-50 milliliters. The stapling does not completely transect the stomach and thus allows a small outflow area. This

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## Obesity / NEWMARK

eliminates the need for a gastroenterostomy. The *gastric bypass* is essentially a surgical procedure which transects the stomach to create a small pouch or reservoir. A loop of small bowel is then anastomosed to the reservoir to drain the pouch thus creating a gastroenterostomy. This procedure, while still technically difficult (0.5-2.0% perioperative mortality) produces none of the metabolic side-effects of the jejunoileal bypass. Severe diarrhea is rarely observed. Patients should satisfy the same criteria for this procedure as for the jejunoileal bypass.

The gastric bypass or stapling procedure will likely replace the jejunoileal bypass as an obesity-modifying surgical procedure. Weight loss is rapid and progressive without the severe malnutrition produced by the jejunoileal bypass. Most patients can lose 50-100 pounds.

*Jaw Wiring* — This procedure is listed mainly for the purpose of completeness.<sup>21</sup> It consists of wiring the mandible to the upper jaw to prevent access of solid food and subsequent chewing. Patients obtain nourishment only with liquids. Aspiration pneumonitis is a major complication. This procedure is effective only for the duration of the wiring and has no long-term beneficial effect. It is rarely employed today.

### EXERCISE

Obese individuals have been shown to have decreased physical activity. Whether this is an acquired trait secondary to increased weight and the increased energy required to move a larger body mass or whether this is a basic inherent trait is not known.<sup>22</sup> Although exercise is extremely important for maintenance of cardiac and respiratory status, it is relatively ineffective by itself as a method for weight reduction.

### PSYCHOLOGICAL

Many psychological approaches have been employed for the treatment of obesity. These are summarized below:

*Behavior Modification* — This type of approach attempts to alter eating behavior. Classical avoidance conditioning, while unpleasant (eg giving an electric shock to those who eat) produces a large weight loss to those who elect to remain in the program. This method is not

utilized very often. The second approach (operant-conditioning) tends to remove troublesome components of the environment.<sup>23</sup> It reduces, eliminates or suppresses cues to eat. These techniques do help patients lose weight but are relatively unsuccessful for long-term weight loss. Although there was initial enthusiasm for this modality as a single method for weight loss, experience has demonstrated that hypocaloric diets should be employed along with behavior modification.

*Psychotherapy* — This approach is usually ineffective in inducing weight loss irrespective of the psychiatric condition. Usually, restricted diets are still required.

*Hypnosis* — This technique may assist in a weight loss of 5-10 pounds but requires at least 3-5 sessions per week to be effective.<sup>24</sup>

### SELF-HELP GROUPS

Many commercial groups, such as Weight Watchers, TOPS (Take Off Pounds Sensibly) Diet Kitchen and Diet Workshops have been recommended by both physicians and by lay groups as an aid to reduce weight. Data on the efficiency of the above groups are generally lacking. It is possible, however, that the application of newer behavior therapy modalities may aid in the effectiveness of self-help groups. Although there are many other commercial diet groups than those listed above, information on the techniques and efficacy (success/failure rate) is generally lacking.

### PHARMACOLOGICAL

A variety of appetite-suppressant medications are available. These agents basically are amphetamine or amphetamine derivatives and act in the central nervous system to reduce appetite. The biological action may be the release of norepinephrine from storage granules. The release of norepinephrine may then affect certain neurological pathways and decrease appetite. Fenfluramine, a non-amphetamine drug, stimulates serotonergic pathways by increasing serotonin concentration, which then produces anorexia. However, the precise localization of the fenfluramine anorectic activity is unknown.

All of these compounds have the potential of serious abuse and dependence with the amphetamines having the highest risk-potential. They never should be employed alone as a sole method for weight reduction. If utilized, they should be administered for six weeks and then



discontinued for six weeks before another treatment trial is attempted. Further usage has not been demonstrated to be beneficial. Weight loss expected over a six-to-twelve week period equals 6-10 pounds and the long-term weight loss is nil. (Recent reports indicate that these agents may be given in higher doses for longer periods of time; however, this cannot be recommended at the present time without additional studies.)

**Human Chorionic Gonadotropin (HCG)** — The rationale for the use of HCG is that it acts as a lipolytic agent in vivo and in vitro. One investigator claims it decreases appetite. When used by "diet clinics", it is invariably accompanied by a 500-800 calorie diet. There are eight double blind studies examining HCG as an obesity treatment. These results indicate that HCG has no biological activity that is effective in the treatment of obese patients.<sup>26</sup> Its actions appear to be those of a placebo.

**D(-) Hydroxycitrate** — The D(-) hydroxycitrate is an isomer of hydroxycitrate and will inhibit the citrate cleavage enzyme which catalyzes the conversion of citrate to oxalacetate and acetyl -COA.<sup>27</sup> As this biochemical step is a key intermediate point in the synthesis of fatty acids, it is possible that this substance could aid in the treatment of obesity. D(-) hydroxycitrate will inhibit weight gain in rats although there is no inhibition of food consumption. Further studies are essential to confirm its efficacy and safety in humans.

**Sucrose Polyester** — Sucrose polyester is a sucrose molecule which has several hydroxy groups esterified with long chain fatty acids.<sup>28</sup> This substance distributes itself as an oil phase within the interstitial lumen. It may aid in the prevention of cholesterol and triglyceride absorption.

**Perfluorooctyl Bromide** — Perfluorooctyl bromide is a fluorated hydrocarbon which coats the intestinal lumen and prevents nutrient absorption.<sup>29</sup> Studies in human subjects are required to determine its efficiency and safety.

**Pluronic-L-101** — Pluronic-L-101, an inhibitor of pancreatic lipase, has produced a decrease in the percentage of body fat in experimental animals. Excretion of dietary fat in the feces was increased by the drug.<sup>30</sup> Studies in humans are not available.

#### CONCLUSION

As this review demonstrates, the etiology of human obesity is poorly understood. In addition,

the medical treatment of obesity has been successful only in treating a small percentage of patients for short-terms. Newer drugs which inhibit nutrient absorption or alter metabolism may aid in the therapy of this important clinical problem.

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## Aims and Goals of the Department of Medicine—Phase II

SOLOMON PAPPER, MD

*We are going to continue in our mode of Humane Scholarship. We recognize excellence is in our grasp and presently it is up to us. We have a pragmatic plan to achieve this. We know, in Sandburg's words "Nothing happens unless first a dream." We also know that the dreams, ie, the philosophical base and the plan mean nothing without implementation, without execution. We now need to execute the next phase (Phase II) with precision, dignity, grace, good will and for the benefit of the total school.*

Almost four years ago when I assumed the Chair in Medicine, I offered a plan for the department's initial goals. That first set of aims and goals was presented at Medical Grand Rounds and then at the regional meeting of the American College of Physicians and the Oklahoma Society of Internal Medicine in November, 1977; it was subsequently published in *The Journal of the Oklahoma State Medical Association* (71:317-325, 1978). Because this first phase is now largely accomplished, it may be helpful to review it as background for considering "Phase II" of my role as steward of the Chair in Medicine.

The future is likely to be influenced by many unknowns. It is even conceivable that a presently unpredictable event will in fact completely determine events over the next few years. This possibility should not preclude planning. Having a plan sets a course, determines priorities, and helps deal with unknown events, even if only by assisting us to rearrange priorities without losing track of an overall plan.

In 1977 I divided my presentation into philosophical premises, a pragmatic plan, and a design for execution. Having reevaluated the philosophical base of our past three years, I wish to continue it intact with only some additional refinement. Therefore let me quote segments of the philosophic premise to convey its essential ingredients and flavor.

### THE PHILOSOPHICAL BASE

Medical schools, since Flexner's time, have traditionally used the three-legged stool to depict graphically the equal importance of education, patient care and research. For many years I have seen the same roles in somewhat different perspective. (Fig 1) The center of focus in my view is *people* and their total health. Thus, a medical school is a center for *humane* concerns. As such, it is by definition related to the community it serves. And since a school is educational and



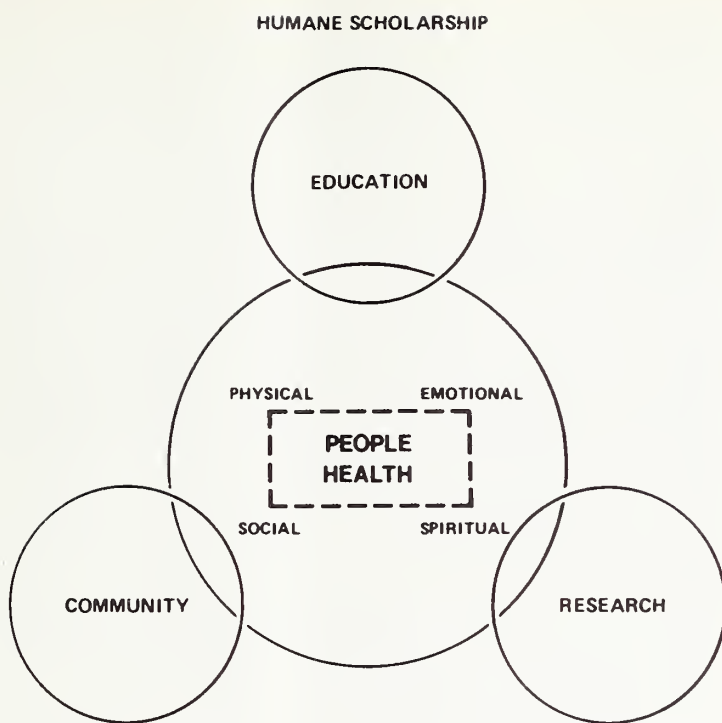


Figure 1. A proposed substitute for the three-legged stool.

should work toward a better future (ie, via research as well as education), a medical school is a center for *humane scholarship*—the phrase I use to describe what I think academic medicine *should* be about.

The term humane encompasses two major concepts. First, compassion, and second, justice. Justice is used recognizing that we serve all people, and in fact that we do *not* place value judgements on the worth of any patient. Scholarship is much easier to define, as the search for truth. In medicine, scholarship includes two general facets. First, bringing to the patient, medical student and house officer, the best scientific knowledge available, and second, scholarship encompasses the need for research in order to develop and generate new information. The term humane scholarship includes then what Buber, a distinguished philosopher of our times designated as the three themes for human consciousness: (1) concern for justice; (2) compassion; and (3) respect for scholarship. It is really not surprising that the overall aim of a medical school should be very comparable to philosophic themes for human consciousness, because no educational system should be more humane than one educating physicians.

A department of medicine is ideally

suited for implementation of the goal of humane scholarship. Internists are usually interested in, educated for, and concerned with the broadest facets of preventive, diagnostic, and therapeutic aspects of medicine. The internist's approach tends to be thoughtful and is concerned with total human biology, defined as including the physical, emotional, spiritual, social, and environmental factors that impinge on man. The base of internal medicine is surely general medicine. Even in order to be a good subspecialist, one first has to have the breadth and scope of the general internist. The coupling of this very broad professional discipline which is ours, with the philosophic emphases we have reviewed makes internal medicine a key unit, although surely not the only one in promoting a school of medicine committed to humane scholarship . . . But medicine can never develop alone. It must be paralleled by quality in all fields, and therefore, medicine must be supported by and lend support to other departments.

Three to four years ago I also went on to make a few more personal philosophical statements and I now quote excerpts from them.

I hope you will forgive a few personal remarks because the aims and goals are, to some degree, inevitably related to the style and person of the chairman . . . I bring to the leadership of this department whatever skills and deficiencies I have, the attitudes I have, and the background that comes with me. I am a general internist by nature, disposition, inclination and action. And although I am very interested in the subspecialty of nephrology, it is not a sole way of life for me.

Obviously, in an educational institution, education is the first and primary goal. However, as I see it, in a clinical department, education derives primarily from the care of patients entrusted to us. *Therefore, from my point of view, first – and foremost, in the aims or goals is the dedication and commitment to excellence in patient care . . .* I believe that if we practice quality medicine on our wards and in our clinics, the clinical portion of our teaching programs for house staff and for medical students will largely be ac-

completed. Lectures and seminars do add a body of knowledge, and can make attitudinal differences. But we can talk to students and house staff all we want about meticulous medical care, and unless we really practice it, and can teach it by example, I believe the words are largely wasted, and we are engaged in high order self-deception.

In summary our philosophical base places people and patient care as the central issue in a format I refer to as HUMANE SCHOLARSHIP.

And now to the pragmatic aspects of the plan of three years ago.

#### PRAGMATIC CONSIDERATIONS

##### A. Administrative Organization

The goals of our organizational arrangements were to: (1) serve and facilitate the professional functions; (2) have realistic, broad participation; (3) simplify our lives; and (4) preserve the faculty including the chairman as professionals. The premises upon which our structure was designed were: (1) the chairman cannot do it all adequately; (2) responsibility cannot effectively be shared or delegated without commensurate authority; (3) the Section Heads are obviously central to a successful department but because of the obligations inherent in their roles as Section Heads, they cannot be regarded as comprising an executive body. Nonetheless, the great importance of their role must be acknowledged; (4) the Executive Committee should be a combination of appointed and elected people who are concerned with major administrative directions including fiscal matters; and (5) students and house of-

ficers should have representative access to their respective educational programs.

We derived the system of two vice-chairmen, one who serves as Chief of Medicine at Oklahoma Memorial Hospital (OMA) and the other who serves as Chief of Medicine at the Veterans Administration Hospital. This gives each of our two central hospitals high level and equal representation in the Department of Medicine. It also places the two central hospitals on an equal level, not only by the equal academic status of the two chiefs, but also because the chairman is himself not a chief of service. The latter also preserves some of the chairman's time while providing greater attention by one person to the complexities of directing a contemporary clinical service.

In addition to subspecialty Section Heads we developed certain programs with their own directors that cross all subspecialties: Director of House Staff Program; Director of Student Education Program; Director of Faculty Education Program; and Director of Continuing Medical Education (CME) Program.

We completely rearranged our business office so that our business affairs work efficiently and our financial status is sound and improving.

##### B. Recruitment of Faculty

Three years ago we had no chief of cardiology or nephrology and had many other faculty vacancies. We stated our attitude towards faculty recruiting as follows:

... we would like to have full-time faculty who are: (1) interested in, and capable of teaching clinical medicine, (2) excellent specialists, and (3) keenly concerned with good patient care. Many but not all should be qualified to do quality, clinical research. It is obvious that these are stringent requirements, and that the proportion of individual ingredients must have some variation. We are keenly aware of the competition in the national scene, but are unequivocally committed to national competition. We encourage our local faculty to apply for and compete for these leadership roles. Nonetheless, it is their understanding as well as ours, that they will be selected on the basis of how well they stand up against national competition, or to phrase it differently — we will choose the best person that we can possibly find for every position . . . This

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(recruiting) is an extremely time-consuming and difficult activity, but I view *every* faculty position as absolutely precious.

In these three years, we have recruited 33 faculty so that 38 percent of our present full-time faculty have been here less than three years. I am delighted with our recruitment in all respects: professionalism, character, personality, and the largely successful blending of the new with the dedicated faculty of previous years. Cardiology and nephrology are already flourishing sections of national distinction.

### C. Educational Programs

We appointed a Director of Student Education with several course coordinators working with him as well as a helpful Student Education Advisory Committee composed of students selected by and from each of the classes. Patient Contact II, now called Introduction to Clinical Medicine was quite successfully revised and advanced. In the second year we also became responsible for Clinical Demonstration II and Pathophysiology. Our third-year clerkship introduced a lecture program, a bi-weekly management conference with the head of the department, and renewed efforts at greater faculty-student contact. Our fourth-year electives were improved mostly via faculty recruitment. Our house staff program evolved from three tenets: (1) a very strong clinical emphasis; (2) the conviction that general medicine is the central issue and (3) the perception that the subspecialties are also obviously very important. We also appointed a Director of the Faculty Education Program (CME). This program has three aspects: (1) a monthly faculty seminar; (2) an annual faculty mutual education retreat; and (3) mini-sabbaticals for the faculty to learn about other disciplines. CME has many offerings with the new addition of the monthly publication of *Medinews* produced jointly with Tulsa's Department of Medicine and distributed widely through the state.

### D. Research

Research has increased substantially as judged by publications, generated grants and presentations at meetings. Let me quote from my comments about research of three years ago; I still subscribe to the views they reflect.

Another area of activity that primarily subserves our educational goal is re-

search. I believe that research is an essential part of a department of medicine, for several reasons. First, it should help provide a clinical atmosphere of stimulation, open-mindedness, inquiry, and the constant looking to future progress. Second, one of our responsibilities is to provide new knowledge for its own sake. The role of research in a clinical department is sometimes the subject of discussion and debate. In some quarters, research became a sacred cow, worshipped without perspective or critique. Research productivity in some places became the major index for climbing the academic ladder. With this potential plum before young academicians, there was the temptation for some to relegate clinical development and teaching to a secondary role, resulting ultimately in the assumption of clinical responsibility by some individuals who were in fact, inferior clinicians. While I do not believe that the academic community has invariably covered itself with glory in these regards, one also has to be leery of the other extreme where a genuine anti-intellectual attitude opposing research evolves under the guise of total clinical and human dedication. Rather, balance and perspective must be gained. Research may be defined first, as the asking of a question that is unanswered and should be answered, and second, the elaboration and execution of a plan that offers a reasonable prospect of answering the question clearly. For me, this definition does not include any consideration of the tools of research. Some good research will require observation of patients alone; other research requires simple laboratory tests; and still other investigations demand high-cost elaborate equipment. I believe the tools should be those necessary to answer the question without dictating the research. There is room for the entire spectrum of research in a good department of medicine providing only that it be of good quality and that it have some impact on students, house staff and fellows. Research has limited positive value and some negative impact when it is merely housed in a clinical department to provide lustre.

### E. Volunteer Faculty

When I first became a Chairman of a De-



partment of Medicine, over 20 years ago, I was offered the support of the practicing internists. This was sustained and put into greater action as the years elapsed. I wrote the following in the *Archives of Internal Medicine* on that subject approximately 12 years ago. I still subscribe to it.

I have always believed, and this belief has been fortified these past few years, that the practicing internist has a great deal to contribute to a teaching program, and furthermore, he has something to contribute that the full-time faculty often cannot. The practicing internist has given willingly of himself, and with sacrifice in time, convenience and money. I believe he received benefit in return. We have observed the good relationship between full time and volunteer faculty with mutual respect for clinical and teaching contributions.

We appointed a committee of the volunteer faculty under Dr Hughes which had the following functions: (1) To act as a credentials committee for new applicants to volunteer faculty; (2) To review in detail our curriculum in Medicine with two matters in mind: (a) to analyze in what courses volunteer faculty can best participate; and (b) to suggest modifications in the courses to enhance the participation and effectiveness of the volunteer faculty; and as its final function, (3) To provide better organization and review of our volunteer faculty participation.

Volunteer faculty now teach in the Health Sciences Center as well as in our community hospital programs. Half the preceptors in Introduction to Clinical Medicine are now volunteer faculty!

#### F. Attitudinal

One of our goals was to continue to nurture our inheritance of good faith, of working well together and with other departments. Three years ago I expressed some concern for what I called the "Problems of the Times" as follows:

There are many societal issues that overflow into the academic medical community and at times appear to engulf us. Life in general has become more complex and there is far more turmoil and unrest in the world. The same is certainly true in the medical school environment. These

are problems of living for all of us that add a sense of agitation and frustration. . . . *They have allowed some to make a friend of defeat and a companion of hopelessness.*

To deal with these and other attitudinal issues I urged efforts to simplify our lives and modify our behavior in certain ways. To simplify life there must first be *real* desire to do so along with the development of skills to implement, to execute, to get things done well and properly and without nagging, crying, and without allowing trivia to loom large. By behavior modification I referred to several things including "behavior patterns when confronted with the reality of inadequate funding." Certainly this behavior modification is no less needed today than three years ago when I expressed my concern as follows:

Americans have become accustomed to equating progress and development with increase in size. It is essential for us now to recognize that that era is a thing of the past. Yes, we can expect to grow in certain ways at certain times, and with certain specific needs, but it is important for us to discipline ourselves to understand that we always need to improve quality in the programs and that improvement in quality sometimes requires growth in space and numbers, but sometimes it does not. More is not always the answer. There is a need for self-evaluation, and a consideration of where the times have taken us. All of us, not only in academic medicine, are too busy and suffer from not taking sufficient time for the quiet periods of reflection, introspection and discussion of what is really important. We need those interludes badly to consider what we are doing with our lives.

#### G. Hospital support.

We were encouraged by the prospects three years ago of added support by the then University Hospital and continuation of the historically excellent support by the Veterans Administration. It was my conviction that there was a need to stimulate the dormant awareness of University Hospital's administration of the important role of internal medicine at the hospital. I believed we could earn that awareness by our steady and capable dedication to patient care and by extending ourselves to support the needs of others. To some extent we



succeeded. We also established a department Patient Care Committee with students, house staff, faculty, nurses, physician assistants, social workers, and clergymen as members.

In *summary*, together we have accomplished a workable administrative organization, have recruited excellent faculty successfully added to and intermingled with those already here, improved teaching at all levels, advanced patient care, enhanced our research efforts, nurtured the old loyalties and participation of our colleagues in practice, while improving our own morale. We have continued the progress of our outstanding predecessors over the past years.

Where then have we fallen short of our Phase I goals? In three areas. (a) Although we now have the resources for a major development in gastroenterology, we are behind schedule. (2) in oncology we have failed to make visible progress in this very important field despite enormous efforts.\* (3) The goals of simplifying our lives and behavioral modification have made advances but have not been accomplished adequately.

I originally estimated that it would take three-to-five years to achieve these aims and goals — three years with great support and good fortune. At the other extreme, if we could not achieve it in five years, that would be a clear signal for me that it could not be done here or that I was not the one to head it, or both. The department has had great support from the dean, college, other departments and other colleges. And with few exceptions I have had enormous faculty, house staff and student support from within the department. In a very personal sense I deeply appreciate this support.

Because of the strong attitudinal support as well as the development of resources along with some good fortune, our aims and goals set forth three years ago are largely accomplished. In some areas we have exceeded projections and in a few others fallen short, but on balance we have completed what I now call Phase I of my chairmanship.

Having accomplished these goals, it seems appropriate to determine what we should do next, what is possible to accomplish next, how long it may take, and for me to reexamine my own role for the future.

I am convinced that we have the major ingredients to move ahead from "Very Good" — where I believe we are now—to "Excellence" in the next four-to-six years. I refer to excellence in our *own* mode, that of "HUMANE SCHOLARSHIP." We have attitudinal and pragmatic support from college and hospital administration, students, house staff, and faculty. We now have hospital governance at OMH committed to excellence in patient care. We have an outstanding VA Hospital admittedly with the current economic constraints of all VA Hospitals. And we have affiliated hospitals, long known for quality. Finally, we have demonstrated ability to attract fine faculty here. We can now move ahead with another major plan. The limitations are human and in our own hands. And I am ready to continue my present role as we move into Phase II.

And now for a brief outline of our aims and goals for the next four-to-six years as I see them after discussion with our entire department — *ie*, Phase II.

#### (A) Humane Scholarship

*First*, I fully subscribe to our major philosophical base of HUMANE SCHOLARSHIP. I will only embellish it by presenting my "Internists Credo" previously presented to the House Staff and published in *Forum on Medicine*, 3:672, October, 1980.

1. Internists care for all adults: advise on good health; prevent illness; and treat the sick.

2. Internists treat acute and chronic illness in patients beginning with adolescence and including the aged.

3. General internal medicine is the mother discipline standing proudly alone and as the basis for all the medical subspecialties as well.

4. All internists subscribe to the fact that society's major current need of internists in diverse communities of varied size is the general internist.

5. Internists practice with equal respect for each other as a spectrum of generalists and subspecialists. Internists are primary physicians and consultants for each other and for colleagues in other fields.

6. Wherever in the spectrum internists practice they are concerned with an in-depth approach to the total person including the physical, emotional, social and spiritual aspects of life. Internists place patients' total problems in context and perspective for the purpose of management.

\*Since this was written, great progress has been made in oncology with uncommon rapidity, including the designation of Dr Robert Epstein as Eason Professor of Medicine and Chief of Oncology.



7. Internists regard technology as their slave and not the master. Technical procedures are used when appropriate, and with knowledge of their advantages and disadvantages.

8. In addition to their first commitment to the care of patients, internists have a long history of dedication to medical education at all levels as well as to the development of new knowledge.

(Copies of this credo are found in many of our offices and are available.)

### **(B) Education**

In the continuing process of always striving for improvement in education, we shall make special major efforts in Pathophysiology, the third-year clerkship program, the fourth-year electives and our new ambulatory care responsibilities to *all* seniors. We are privileged to expand our teaching efforts in this way.

With our house staff's help we shall continue to examine our program. We shall continue to nurture idealism in medicine by our actions and by some special conferences that examine philosophical issues. And as we give preference to our own graduates for house staff selection we shall also encourage excellent applicants from elsewhere. I have some specific house staff goals — for example to consider a P-III rotation on surgery as the first level consultant in medicine. This would teach the exciting world of medicine in surgery and help with the development of consultation skills. We should consider holding a Medical-Surgical Conference with the surgeons.

### **(C) Recruitment**

We shall proceed hoping for results as in the recent past in other fields to recruit excellent faculty in gastroenterology, pulmonary and immunology (arthritis).<sup>\*</sup> We are well on our way in our efforts to develop an excellent oncology program.

<sup>\*</sup>Since this was written we have been fortunate to appoint an outstanding Chief of Allergy, Arthritis and Immunology, Dr Morris B. Reichlin of the University of Buffalo. His appointment is jointly sponsored with Oklahoma Medical Research Foundation and represents a landmark new direction for such combined efforts. We have also recruited a new Chief of Pulmonary, Dr Sami I. Said, an internationally prominent professional who was Professor of Medicine at Southwestern Medical School in Dallas.

At the same time, however, Dr Everett Rhodes has resigned as Chief of Infectious Disease and we are proceeding with active recruiting for this position.

### **(D) Volunteer Faculty**

We are committed to greater involvement of the volunteer faculty and continuing medical education. We are working with plans for tapping Grand Rounds, for holding a quarterly Internist's Forum and for greater participation by volunteer faculty in the annual faculty self-teaching retreat as well as the mini-sabbatical for practicing physicians.

### **(E) Research**

Our broad and diverse research efforts are developing nicely and in addition to continued advancement in these directions I see three areas for selected emphasis: (1) clinical research, *ie*, research that requires the asking of good questions about patients and devising simple coordinated means of answering them, *ie*, research not requiring special skills, special places or special money; (2) close research links to surgery; and (3) greater participation of students and house staff in our research activities.

**(F) New Emphases:** I have selected two special areas for emphasis.

#### **1. Chronic Illness and Aging**

It is common knowledge that patients with chronic illness constitute a significant part of internal medicine. Yet I believe they have seldom received the detailed attention that we have justifiably given the critically ill. It is common knowledge that a larger and growing proportion of patients are over age 60 and need special attention. It is also well-known that the chronically ill and the aged have been major concerns of mine for many years. Because of the commonality of problems and approach to these problems it is my view that we should plan for the aged together with chronic illness. I believe that patients do best with a specific program including three types of ingredients: (1) specific treatment measures; (2) general health measures; and (3) life measures. In summary the following are the specific goals.

(a) To develop a program in chronic illness and aging with a full-time director.\*

\*Dr John Mohr has accepted this responsibility.



(b) Ultimately *all* chronically ill and/or aging patients will have a program developed around their personal life and interests.

(c) The program will involve other disciplines such as nursing, physiotherapy, occupational therapy, vocational guidance, social work, dietitians, physicians assistants, chaplains, and others.

(d) A specific curriculum will be developed to teach the students, house staff and faculty the principles of geriatrics.

(e) Management conferences such as we instituted a year ago for third-year students will be reinforced and extended where relevant.

(f) We will work with the new Gerontology Center.

(g) We will develop programs in preventing chronic illness.

(h) Finally, it is my conviction that the development of this program will be of great value locally and will serve as a national model for another major direction of general internal medicine. This direction includes patient care, education and research.

## 2. Nutrition

We have the need and the potential capability to develop a major program in nutrition. We have Dr Whang, President of the American College of Nutrition and Dr Welsh, a long-time leader in the field. The department should generate patient care, education and research programs in clinical nutrition for chronically ill or aging patients as well as for patients who have acute, critical illness.

All aspects of hospital nutrition should be questioned, reviewed and many selected for study.

It is my hope that this can be developed promptly.

## (G) Attitudes

We need to work even harder in certain attitudinal areas. We must dedicate ourselves to live by the Internist's Credo. We need to make evident the idealism we feel and cherish. And we must enlarge our efforts to simplify our lives and modify our behavior, especially in response to stress.

Finally, I am struck by three great distinctions that we would all be well-advised to hold at higher levels of awareness. First, we must

learn more about distinguishing between a principle and a detail. The major practical area of confusion in this distinction is when we are faced with a *large* detail. The fact that a problem is large does not make it one of principle; it may only be a large detail. Second, there is a real difference between '*being* right' and '*doing* right.' Being right is often a matter of vanity; it often is not very important; and certainly does not generally involve moral principles. Doing right is critical, it often involves principle and morality. Thirdly, disagreement and debate is often healthy but there is a difference between a dirty and clean fight. For example when a married couple lists the pros and cons of buying a new car and discuss it in terms of money and priorities, etc, that is clean. When one of them is not getting his or her way, the argument readily deteriorates into a dirty one by the sudden intrusion of the statement "your mother never liked me anyhow."

## (H) The Chairman

Three years ago I expressed deep concern for the role of a head of a department of medicine and for professional and personal survival of the individual in general and myself in particular. What should a chairman be? This concerned me deeply almost 20 years ago, when I first assumed a chair. And the concern is not dispelled. I believe a chairman should be an effective leader, with a broad knowledge of clinical medicine, and with high standards of quality. The chairman has three major roles: (1) setting a tone, and that means continuing to be a scholar, a good clinician, and teacher; (2) performing the leadership role in recruiting. (My aim in recruiting is to attract people who are better than I am.) (3) The chairman should be most critically concerned with facilitating the accomplishments and developments of others, *ie*, he needs to enjoy basking in reflected glory. Without consideration of the qualifications of any particular person, but certainly including myself, I am concerned with the forces operating nationally and locally to make it difficult to meet these standards.

In recent years we have seen too rapid turnover of chairs of medicine in the United States (3.8 years!) as well as great difficulty in filling chairs of medicine (it takes 2.5 years). Braunwald, perceiving the serious implication of the problem led an intensive study of the reasons for the problem and its impact. The data were



reported in 1975, and I quote only one paragraph.

We have learned that leading the departments of medicine of American medical schools we have a group of harried, exhausted, overworked, albeit well-paid individuals, who see themselves as unsuccessful professionally and who are perceived as such by key members of their departments. Sixteen percent of the chairmen, and only six percent of those now under the age of 50 years plan to remain in their current positions until retirement, and most are so frustrated that they have given very serious consideration to resignation in just the last year.

Things have gotten even worse since then. The consequences are unsteadiness, loss of continuity and impaired quality of medical education. There are many reasons for this unhappy state — too much to do that in fact needs to be done; too much to do that is made excessively difficult by various bureaucracies; sloth and incompetence in many contact areas; too many complexities; national uncertainties, economics and the general problems of our times. These problems were much less prominent when I first became a chairman 20 years ago. In fact, chairs were then good jobs and viewed as such. I left being a chairman years ago *because* of all the changes that stimulated in me the great fear that I would be transformed from a professional into a paper shuffler. Although there is a broad range of problem areas as already indicated there are only a few that really stress my hypothalamic wellness center:

(1) When I believe that major events over which I have no influence may take place and have the potential to override much that is important to accomplish or is already accomplished. So far this has only been a reality problem once a couple of years ago and had a happy ending.

(2) That there are people, fortunately only a few, who have a great preoccupation with trivia which is generously shared with me;

(3) Although I am eager to help solve problems that can allow forward movement to occur, I would welcome more time for savoring success with people who are happily succeeding. I have recently kept a private record of how some of my time has been spent. In the past three months I have devoted 80 hours to

matters directly or indirectly related to man-made problems of three faculty people. On balance, in my view this is greatly out of proportion from any perspective. Furthermore, it is time not available for other things. (Once a member of the department made an appointment to see me only to tell me he was happy; and that things were going well and his only problems were trivial; that was a memorable day — May 3, 1965);

(4) Intelligent people often have well-developed levels of self-deception which blurs their focus as they interpret issues. They often arrive at *the* answer sometimes without the benefit of knowing the facts.

(5) The failure to give it everything is bothersome. To settle for less than one can do is basically to be a "taker" when in our lives we should all be "givers."

When I agreed to accept the chair here, I was not a new chairman and was aware of and made plans to arrange it so that I might survive with contentment and also I hoped to help set a model to help the important national problems of preserving Chairs in Medicine. At the time I said:

I do not profess to have the solution. We are moving in our Department in the direction not only of shared and delegated responsibility, but also shared authority in administration. I see that as a central issue. We have a commitment to simplification of all our lives or at least our reaction to stress. I define crisis as: (1) a patient is perceived as needing me or (2) my family needs me. I see only rare exceptions to this definition; administrative matters — although commonly painful — are rarely of crisis nature. In any event, perhaps sanity, clinical skill and scholarship, to whatever degree present can be preserved.

I think we have made progress and have had many successes: our system of delegated professional administration works well; most Section Heads have a real commitment, understand their roles, and perform well; our business office saves my time as it works effectively; most of the faculty, house staff and students have given elegant and strong support; and the department has the backing of college, HSC, and hospital administration. *These developments have led us far along the path of one of my long-range goals — to establish in Oklahoma for the future, one of the more desirable*



*chairs in the country.* On the other hand, more needs to be done to realize that goal fully.

#### SUMMARY

And so we know we are going to continue in our mode of *Humane Scholarship*. We recognize excellence is in *our* grasp and presently is up to us. We have a pragmatic plan to achieve this. We know, in Sandburg's words "Nothing happens unless first a dream." We also know that the dreams, ie, the philosophical base and the plan mean nothing without implementation, without execution. We now need to execute with precision, dignity, grace, good will and for the benefit of the *total* department which in turn will benefit the *total* school.

In closing, I wish to share with you four personal reflections. First, although I cannot guarantee a good future, I am very optimistic and I do commit my very best effort. Second, in general, my mistakes have been generously tolerated; I hope that will continue to be the case.

Third, I respect anyone in academic medicine who accomplishes anything, any time and any place. Finally, the University of Oklahoma and its Department of Medicine have a past in which everyone can take pride. I cherish the past and all that has been good in the history of our school. However, the past should be used as a foundation and a base of experience, not as a crutch. To live with the past *including these past three-and-one-half years* is to become part of the past. For me, I am concerned primarily with the quality of the present and the future. It should be exciting.

I do hope *all* of you throughout our state will join me wholeheartedly as we enter Phase II of my chairmanship. Our prospects are in fact unique when one considers the limitations and constraints that currently apply to most other schools. On the other hand, without your positive support I have little to offer as the head of your Department of Medicine.

University of Oklahoma Health Sciences Center,  
P.O. Box 26901, Oklahoma City, OK 73190.

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## Diseases Due to Automobiles

Although we have just begun to use these new motor wagons, there are already evidences that many diseases will be provoked and can be traced directly to this mode of locomotion. Doctors who have used these wagons extensively already realize that catarrh, bronchitis, with various ear troubles, are common results following the use of these wagons. Pleasure seekers who use these wagons at high speed are obliged to wear goggles, veils, gloves, and rubber coats, and not only suffer from affections of the eye and ear, but have local neuralgia. The high speed and temptation to take risks on a good road, and break the record for skill and time, develops a nerve tension which is very exhausting. A physician owning a very large machine, who insists on doing his own driving, found that he suffered from unusual exhaustion at the end of the day's work. In reality,

while guiding the machine his mind was in a state of constant tension to the sounds of the machine and the efforts to avoid obstacles in the way and keep control of the lever. There was the unconscious fear of something unexpected occurring at every turn of the road. The tension was, in reality, more severe than that of a locomotive engineer who had a straight track and the wheels guarded from leaving the rails. The drivers of these machines are already appearing as patients for troubles which are due to the strong currents of air and dust which surround him, and the constant nerve tension and muscular strain to adapt himself to the circumstances. It is to be expected that in the future these evils will increase and the diseases which follow will be more prominent.—*Charlotte Medical Journal*.

Reprinted from *Southern Practitioner* 25: 544-545, 1903.



## News From The Oklahoma State Department of Health

The Oklahoma State Department of Health has embarked on a three-year demonstration program designed to help the state's elderly preserve their independence.

The program, called Comprehensive In-Home/Community-Based Care, was developed with the belief that nursing home or other institutional care is not appropriate for the majority of Oklahoma's elderly, and that existing social and health services should be made more readily accessible to this segment of the population.

The demonstration program will be implemented in three or four Oklahoma counties, setting up cooperative arrangements among each local community's existing volunteer and public services and stimulating the development of new services to fill the unmet needs of older citizens.

The agency selected for administration of the program in a particular community will serve

as the clearinghouse and single point of contact and entry for the provision of all services, regardless of the source of the care.

Participants in the program will continue to live at home, but can call upon the community-based service network as needed for such things as transportation to medical and dental appointments, shopping assistance, personal counseling, home-delivered or congregate meals, home maintenance, physical therapy, skilled nursing services, assistance with insurance and social security matters, recreational activities, and other services.

Those over the age of 60 now comprise more than 17% of Oklahoma's population, and their proportion is growing. The Comprehensive In-Home/Community-Based Care program offers an alternative for many of the state's aging men and women who might otherwise have to relinquish their independence and thus become isolated from the mainstream of life within their communities. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR JULY, 1981

DISEASE	August 1981	August 1980	July 1981	TOTAL TO DATE	
				1981	1980
Amebiasis	5	7	6	20	33
Aseptic Meningitis	28	4	7	76	35
Brucellosis	—	2	—	3	5
Encephalitis, Infectious	2	1	1	18	10
Gonorrhea (Use Form ODH-228)	1548	1227	1414	10402	9220
Hepatitis A	31	23	31	208	266
Hepatitis B	21	22	16	144	138
Hepatitis Unspecified	9	24	3	87	184
Malaria	2	2	—	6	12
Measles (Rubeola)	—	5	—	6	774
Meningococcal Infections	4	1	3	35	17
Pertussis	1	7	—	2	22
Rabies (Animal)	16	19	21	160	187
Rocky Mountain Spotted Fever	10	16	14	85	56
Rubella	—	—	—	—	4
Salmonellosis	63	61	48	261	202
Shigellosis	103	37	22	241	156
Syphilis (Use Form ODH-228)	13	11	14	117	74
Tetanus	—	—	—	1	—
Tuberculosis	46	27	34	241	213
Tularemia	2	4	1	15	18
Typhoid Fever	—	2	—	4	4



## Council Meets in Two-Day Session

The Council on Planning and Development met September 24 and 25 to review progress reports of the eight operating councils of the association. The council, composed of officers, council chairmen and AMA delegates and alternates, reviewed council activities for conformance with actions taken by the House of Delegates in May. The planning session also gives council chairman an opportunity to discuss problems and future programs under consideration.

Floyd F. Miller, MD, Chairman, said after the meeting, "All of the councils are working toward the accomplishment of objectives set and approved by the House, and no major problems have surfaced since the annual program of activities was adopted in May." "However," he said, "We all recognize the need to plan for the future, and while this was a good meeting, it is my hope that in our next meeting we'll spend more time discussing where the association will be three-to-five years from now."

The bylaws creating the Council on Planning and Development charge it with the responsibility for making recommendations to the Board of Trustees and to the House of Delegates concerning the long-range objectives of the association and to assess and make recommendations regarding the resources and programs necessary to reach those objectives. □

## Studies Indicate No PLICO Increase

Actuarial studies indicate there will be no need for an increase in professional liability insurance premiums by Physicians Liability Insurance Company (PLICO), the physician-owned professional liability insurance company, for 1982. C. Alton Brown, MD, President of PLICO, predicted in early October that Oklahoma physicians would be paying approximately the same amount in 1982 for the professional liability insurance as they paid in 1981.

One possibility which could change the premium prediction would be a catastrophic loss before the end of the year. Dr Brown indicated that he could not foresee any such losses, but if one should occur it would substantially change the statistical actuarial studies. The studies

were based on the primary layer of professional liability insurance written by PLICO for Oklahoma physicians. A catastrophic loss would affect the upper or reinsurance layer.

Dr Brown explained that PLICO retains only the first \$100,000 of risk plus a small ceded quota share of the next \$100,000,000 of risk for each claim. PLICO then enters into a contract with General Reinsurance Corporation to reinsure the remainder of the first \$100,000,000 plus higher coverage limits running from \$1,000,000 to \$5,000,000 per physician. In effect, PLICO buys insurance from General Reinsurance Corporation.

It is the reinsurance portion of the premium that is currently being negotiated. "I am confident that PLICO is more than adequately funded to shoulder its share of the risk throughout the next policy year," Dr Brown said, "but negotiations are pending with our reinsurer. Until they are complete we cannot guarantee that the charges for limits above \$100,000 will remain the same. In fact, nationwide reinsurance costs have climbed considerably for both commercial and captive (physician-owned) insurers."

"Even if the reinsurance costs increase," Dr Brown added, "PLICO will still be in the envious position of offering the lowest malpractice premiums in the nation." PLICO's ability to offer low-cost malpractice insurance is found partially in the fact that it was capitalized by a three-part assessment of all OSMA members being insured. When the third installment of the assessment is collected in early 1982 the company will have a capitalization in excess of \$3,000,000, making it one of the best financed physician-owned captive companies in the United States. The level of capitalization makes it possible for PLICO, if it wishes, to retain more of the risk and to offset any increase in reinsurance cost.

PLICO's coverage of Oklahoma physicians is on an "occurrence" basis. The occurrence-type policy holds the insurance company responsible for liabilities arising out of all professional practices of the individual physician during the coverage period, even if claims are made



years after the policy has expired. One major advantage to occurrence policies is that if the physician retires, it is not necessary for him to continue paying professional liability insurance premiums.

Another type of professional liability coverage is referred to as "claims made." This form was pioneered by the St Paul Fire and Marine Insurance Company which currently has a filing before the insurance rating board in Oklahoma. The OSMA in conjunction with the Oklahoma Hospital Association and the Oklahoma Osteopathic Association is opposing this filing.

Claims made policies offer a limited coverage and initially appear to be very attractively priced. The low price, however, is based on the fact that the claims made policy limits coverage to claims which are reported to the company while the policy is in force. If a doctor retires, if he is cancelled, or if he should decide to change carriers, the claims made coverage is void on any unreported claims unless the physician purchases an "extended reporting endorsement." Typically, this endorsement costs at least 150% of the current annual premium.

The second major problem with claims made coverage is that while the initial premiums are quite low, the longer the physician stays in the program, the premiums get higher and higher. In a very few years the physician insured through a claims made policy will find he is probably paying higher premiums than his colleagues who purchased an occurrence policy.

Oklahoma physicians are in an enviable position, Dr Brown said. "Because we are in control of the policy premium . . . state physicians will never pay more than a fair price for malpractice insurance in Oklahoma." □

#### FOR LEASE

Building converted for clinic. 1,600 square feet, one-half block north of Oklahoma Children's Memorial Hospital and across the street from VA Hospital in Oklahoma City. Call after 6:00 PM, (405) 842-3419.

## Crucial Issues Face State Legislative Council

William L. Hughes, MD, State Legislative Council Chairman, reports that the council will study several major areas of legislative concern. The Oklahoma malpractice statutes are presently being reviewed for possible amendments to avoid another "malpractice crisis" situation. The council will be looking at such items as counter-suits, protection against frivolous lawsuits and disclosure of collateral sources.

Another area of study will be the increasing expansion of practice by para-professionals such as optometrists, podiatrists, psychologists, nurse practitioners, etc. With the recent expanded role of the nurse practitioner and optometrists given legislative sanction to use medicines and drugs, the legislature as opposed to the educational institution has become the arena for expanding a scope of practice. The council will investigate ways to counteract this movement.

Another topic of discussion will be dealing with the trend of legislative sanctions for so-called "miracle drugs," *ie*, laetrile, DMSO, etc. The OSMA House of Delegates has asked the Legislative Council to seek removal of the requirement for parental consent when prescribing contraceptives to sexually-active minors. The Board of Directors of the Tulsa County Medical Society has appealed to the Legislative Council to study possible legislation to correct some of the abuses in the operation of public multiphasic health screening programs. The council will also look at automobile child-restraint laws within the public safety statutes.

As a result of information obtained from the jail project of the Oklahoma State Medical Association, the Legislative Council will study possible legislation to improve the medical care given within city and county jails.

If you have any information or comments concerning any of the above-mentioned legislative areas or suggestions for other areas of study, please feel free to contact the legislative department of the Oklahoma State Medical Association. It is preferable that the information and comments be obtained in writing for documentation and follow-up purposes. □



## **Tulsa County Medical Society Awards Scholarships**

Twenty-three area medical students have been named as recipients of educational assistance awards of \$200 to \$1,200 each by the Scholarship Fund of Tulsa County Medical Society.

The total value of the cash grants by the 800-member physicians' organization was \$15,700, a 56% increase over the amount awarded in 1980.

Sixteen of the winners are enrolled at the University of Oklahoma College of Medicine in Oklahoma City, four at the University of Oklahoma Tulsa Medical College, and three at Oral Roberts University School of Medicine. All are Tulsa County residents.

The Dr Anna Luvern Hays Memorial Scholarships, endowed by the late Tulsa pediatrician who died in 1965, were awarded to Eletha L. Surratt, \$1,000; Steven R. Unterman, \$500; Mark F. Lemons, \$1,000; Thomas D. Matthews, \$500; Michael P. Gwartney, \$500; Susan L. Grayson, \$200; Ronald M. Forristall, \$500; all of Tulsa, and Charles A. Howard, Broken Arrow, \$500.

The Dr Frank L. and Jessie O. Flack Scholarships, created by Mrs Flack in memory of her husband, a Tulsa surgeon and medical leader who died in 1963, were given to Carol A. Kahnert, Oklahoma City, \$1,200, and Brett A. Lantz, Tulsa, \$500.

The Dr John G. Matt Memorial Scholarship was awarded for the first time to Robert Carl Clark, Tulsa, \$1,000. It was endowed by the late Tulsa surgeon who died in early 1979.

The Dr O. C. Armstrong Memorial Scholarships went to Guy P. Belford, \$1,200; Mark D. Kraemer, \$1,000; and Gregory S. Connor, \$1,000, all of Tulsa. These scholarships were established by Dr Armstrong, a family practitioner, who died on July 9, 1981.

The Auxiliary to Tulsa County Medical Society Scholarships, supported by an annual grant from the organization of physicians' wives, were given to Connie Jo Lake, Tulsa, \$1,000, and Letitia D. Dowe, Broken Arrow, \$500.

The Glass-Nelson Clinic Memorial Scholarships of \$200 each went to William A. Portuese, Tulsa, and Nancy E. Grayson, Tulsa. These grants were established by the Tulsa group practice clinic in memory of deceased partners and their families.

The Dr Maxwell A. Johnson Memorial Scholarship, in memory of the Tulsa urologist and medical leader who died in 1971, was awarded to John A. Yeabower, Jr., Tulsa, \$1,000.

The Glenda Ann Cale Memorial Scholarship went to Anne M. Harrington, Tulsa, \$500. This grant was established by physicians and friends of a 23-year-old Southwestern Bell Telephone Company employee found murdered in 1972.

The general scholarships from the fund were given to Cheri S. McClendon, \$1,000; Michael L. Whitworth, \$500; and David L. Simms, \$200, all of Tulsa.

Since its establishment in 1963, the Scholarship Fund of Tulsa County Medical Society has assisted over 220 medical students to complete their professional education. The fund is a separate non-profit foundation under the direction of a five-man Board of Trustees. The 1981 Board comprises Dr Michael J. Haugh, Chairman, Dr Dixon N. Burns, Dr David Browning, Jr., Dr Victor L. Robards, Jr. and Dr Richard A. Doss. □

## **Accreditation Committee To Be Very Active**

The Accreditation Committee of the Council on Medical Education has a very busy schedule between now and the end of this year. The council, which is responsible for the surveying and accrediting of Oklahoma hospitals and institutions for continuing medical education purposes, has three organizations lined up for re-surveys of current programs. The continuation of the programs of Medical Products Systems Incorporated, Bartlesville, St John Medical Center, Tulsa, and Presbyterian Hospital, Oklahoma City, will be decided over the next three months.

Including the three organizations mentioned there are ten hospitals or health-related organizations accredited to produce Category I continuing medical education programs. The list includes South Community Hospital, Oklahoma City; Baptist Medical Center, Oklahoma City; St Anthony Hospital, Oklahoma City; Hillcrest Medical Center, Tulsa; St Francis, Tulsa; Mercy Health Center, Oklahoma City and the University of Oklahoma College of Medicine, Oklahoma City and Tulsa. □



## Ophthalmologists Issue Public Warning

The Oklahoma State Society of Ophthalmologists issued a press release cautioning Oklahomans about the potential danger of allowing non-medically-trained optometrists to use medicine in their eyes. The press release attempts to educate the public on the differences between ophthalmologists (MD) and the optometrists (OD). The public is alerted to the limitations of some optometrists in dealing with medical complications resulting from the use of ophthalmic medications.

After several years of opposition to the optometric drug bill by the Oklahoma State Medical Association, the legislature passed a bill effective October 1, 1981, allowing optometrists to use ocular pharmaceuticals. Oklahoma ophthalmologists agree that it will be the patient, not the physician or optometrist, who will risk the ill effects of this dangerous law. □

## International Group Swamps OSMA With Telegrams

Physicians from around the world have sent hundreds of telegrams and letters to OSMA opposing the execution of Thomas Lee "Sonny" Hayes. Members of Amnesty International, a group opposed to capital punishment, are asking OSMA to urge physicians not to participate in the execution on the grounds that it is "unethical behavior."

Hayes, who was scheduled to die on September 14, 1981, would have been the first convicted criminal to be executed by lethal injection in the United States, a method established by the legislature in 1977.

The Oklahoma law, which became a model for other states, does not require the participation of a physician in the execution. The law states, "The punishment of death must be inflicted by continuous, intravenous administration of a lethal quantity of an ultrashort-acting barbiturate in combination with a chemical paralytic agent until death is pronounced by a licensed physician according to accepted standards of medical practice."

In response to the many inquiries James B.

Pitts, MD, President, said, "The law passed by the legislature established the public policy of the state regarding legal executions; the conviction by the jury and the sentence by the judge are legal matters and are not within the jurisdiction of organized medicine. No physician is required by law to participate."

Hayes was granted a stay pending further appeals. □

## Loney Memorial Scholarship Established

William R. Loney, MD, a Bartlesville dermatologist, has established a memorial scholarship with a gift of \$23,750 to the Scholarship Fund of Tulsa County Medical Society.

It was created in memory of his parents, Dr William R. R. Loney, the prominent Tulsa obstetrician and gynecologist who died in 1966, and Ruth G. Loney, who passed away in 1980.

Income from the gift will be used for one or more annual cash grants to assist deserving medical students to complete their medical education. The first Dr William Robert Roy Loney and Ruth Greenfield Loney Memorial Scholarship will be awarded in the summer of 1982.

Both of the Loneys were widely known for their leadership in cultural and civic activities in Tulsa. Doctor Loney, Sr served as President of the Tulsa Civic Music Association for eight years, and was a member of the Tulsa Little Theatre and the Cultural and Educational Committee of the Metropolitan Tulsa Chamber of Commerce. He was an art collector of note.

Mrs Ruth G. Loney served at various times as an officer of the Auxiliaries to Tulsa County Medical Society and Oklahoma State Medical Association, and as an officer of the Tulsa Boys Home, the American Association of University Women, Tulsa Panhellenic Association and the Tulsa League of Women Voters. In 1956, she was named as the Outstanding Delta Zeta of that year by Oklahoma State University.

Doctor Michael J. Haugh, Chairman of the Scholarship Fund of Tulsa County Medical Society, said Dr Loney's gift was one of the largest individual contributions to be made to the fund in its 18-year history. The fund gave 23 scholarships to Tulsa County medical students this year with a total value of \$15,700. □



## Oklahoma Abortion Laws Revisited

A twelve-year-old girl's possible need for an abortion came to the public's attention in Oklahoma in late September. The girl reportedly had been gang-raped and not only became pregnant but also, apparently, contracted a venereal disease during the incident. Physicians were convinced that she needed an abortion in order to preserve her health, but the girl's mother opposed the procedure on religious grounds.

The Supreme Court of Oklahoma issued an order directing the District Court of Oklahoma County to authorize an abortion for the girl if it was found to be medically necessary. At this writing a final determination has not been made in the case.

Oklahoma's abortion laws date back to 1890, when there was a mention in the laws of Oklahoma Territory of abortions. In 1910, the Oklahoma legislature, while rewriting the pre-statehood laws, adopted an act declaring the procuring or administration of an abortion to be a crime punishable by imprisonment in the penitentiary for up to three years or in a county jail up to one year.

A physician could, under the 1910 law, perform an abortion on a woman if it was "necessary to preserve her life."

This statute remained in effect in Oklahoma until 1973, when it was declared to be unconstitutional by the Oklahoma Court of Criminal Appeals in the case of *Jobe v. The State of Oklahoma*. The Court said, "(the) provision . . . punishing every person who administers to any woman or advises any woman to take any medicine, drug or substance or uses or employs any instrument or other means with intent to procure miscarriage of such person, unless the same is necessary to preserve her life, is unconstitutional as violative of the due process clause of (Article 14 of the Constitution of the United States of America)."

In that same year a Federal Court in the case of *Henrie v. Derryberry* said, "This section is invalid under due process clause of 14th Amendment in view of broad prohibitions which accepted only abortions necessary to preserve life of mother."

Performance of an abortion by a physician was also grounds for revocation of the physician's license under a 1923 law defining unprofessional conduct. The first definition of unprofessional conduct was "procuring, aiding or abetting a criminal operation or abortion."

Oklahoma's Medical Practices Act was amended extensively in 1973, immediately following the *Jobe* decision, and the definition of unprofessional conduct was expanded, but the word "abortion" was dropped. The first definition now reads, "procuring, aiding or abetting a criminal operation."

The combination of the *Henrie* and *Jobe* decisions effectively eliminated all Oklahoma law regarding abortions. Several bills were immediately introduced into the Oklahoma legislature to rewrite the statutes that had been declared unconstitutional. Neither the first nor second session of the 34th legislature meeting in 1973 and 1974 could agree on any single bill. The only legislative action took place in 1973, when the definition of unprofessional conduct was changed.

Oklahoma legislators, during the 1975 legislative session, adopted a resolution asking Congress to curb the powers of the Supreme Court and remove the question of abortion from the jurisdiction of the Court and return it to the states. In that same year the legislature also adopted House Bill 1537, defining and then specifying the rights of a minor to consent for his own medical care under certain circumstances. Because of a flaw in the phraseology it was necessary for the legislature to adopt an almost identical bill the following year, 1976.

With the passage of the 1975 law, for the first time Oklahoma had a statute clearly indicating that a minor was any person under 18 years of age, "except such person who is on active duty with or has served in any branch of the armed services of the United States shall be considered an adult."

This definition of a minor, also for the first time, indicated that an adult for medical care purposes was any person 18 years of age or over.

The 1975-76 law indicated that under certain circumstances minors were to be considered adults for all medical care purposes. A minor who is married, has a dependent child, or is emancipated, or any minor who is separated from his parents or legal guardian for whatever reason and is not being supported by them, is considered an adult for all medical care purposes.

A minor parent consents for all medical care to his child, and any minor in need of emergency services for conditions "which will endanger his health or life if delay would result by obtaining consent from his spouse, par-



ent or legal guardian;" can consent to his own care. This latter provision also says, "However, . . . the prescribing of any medicine or device for the prevention of pregnancy shall not be considered such an emergency service."

A minor is also given a limited right to consent to medical care under certain circumstances. Any minor who is or has been pregnant, afflicted with any reportable communicable disease, drug and substance abuse or abusive use of alcohol can consent to the diagnosis and treatment of these conditions.

Most legal authorities agree that unless the minor is emancipated, *ie*, married, has a dependent child, or living apart from his parents, the law is not permissive enough to allow the minor to consent to an elective abortion.

It was not until 1978 that the Oklahoma legislature was able to agree upon a definitive abortion law. The second session of the 36th legislature declared, "No person shall perform or induce an abortion upon a pregnant woman unless that person is a physician licensed to practice medicine in the State of Oklahoma. Any person violating this section shall be guilty of a felony punishable by not less than one (1) year nor more than three (3) years in the state penitentiary," and further, "No person shall perform or induce an abortion upon a pregnant woman subsequent to the end of the first trimester of her pregnancy, unless such abortion is performed or induced in a general hospital."

It is only when the mother is in the second or third trimester that there must be a determination that her life or health is in danger. The law states, "No person shall perform or induce an abortion upon a pregnant woman after such time as her unborn child has become viable unless such abortion is necessary to prevent the death of the pregnant woman or to prevent impairment to her health." The fetus is presumed to be viable, "if more than twenty-four (24) weeks have elapsed since the probable beginning of the last menstrual period of the pregnant woman, based upon either information provided by her or by an examination of her attending physician."

An abortion may not be performed on a woman if there is the possibility of a viable fetus, "except after written certification by the attending physician that in his best medical judgment the abortion is necessary to prevent the death of the pregnant woman or to prevent

an impairment to her health. The physician shall further certify in writing the medical indications for such abortion and the probable health consequences if the abortion is not performed or induced."

Oklahoma's law specifies where abortions may be performed, records that must be kept, and who must be present at the time.

There appears to be one contradiction in the Oklahoma law regarding abortions. At one point the statute implies that only abortions performed in the second or third trimester must be in a general hospital. But another section of the law *seems* to say that any abortion "shall be performed only in a hospital . . ."

Several attempts have been made by interested organizations to statutorily define a point when life begins. United States Senate Bill 158, under current consideration, provides that human life shall be deemed to exist from conception. The adoption of this definition would probably eliminate the right of a healthy woman, whose life or health was not in danger, to an abortion on demand. It would, in effect, make the abortion of the fetus a homicide.

Joseph F. Boyle, MD, Chairman of the Board of Trustees of the American Medical Association, testified before the US Senate Judiciary Committee's Subcommittee on Separation of Powers regarding Senate Bill 158. Dr Boyle said:

The American Medical Association is pleased to respond to an invitation to present its views on S. 158, a bill that would statutorily declare as national policy that "human" life begins at conception for the purpose of certain constitutional protections guaranteed by the 14th Amendment to the U.S. Constitution. This bill, having assumed that human life begins at conception, is designed to prohibit state governments from enacting laws that would deprive a fetus "of life without due process of law" from the time of conception. One of the intended purposes of this legislation would be to prohibit states from allowing abortions, without regard to the circumstances of the pregnancy. More specifically, it seeks to deprive women of rights the Supreme Court found were guaranteed under the Constitution.

The operative portion of the legislation states that "for the purpose of enforcing the obligation of the States under the 14th Amendment not to deprive persons



of life without due process of law, human life shall be deemed to exist from conception, without regard to race, sex, age, health, defect, or condition of dependency; and for this purpose "person" shall include all human life as defined herein.

The central assumption contained in the legislation, Mr Chairman, is the proposed Congressional finding in the bill that "present day scientific evidence indicates a significant likelihood that actual human life exists from conception." Implicit in the bill is the assumption that there is a "scientific consensus" in support of that view. In our opinion this assumption is not correct.

In asserting the lack of a "scientific consensus," we join the many medical and scientific witnesses that hold a similar view. In addition, while the prestigious National Academy of Sciences has not testified here, that body has reacted to this bill and has strongly objected that the statement that "present day scientific evidence indicates a significant likelihood that actual human life exists from conception" cannot stand up to the scrutiny of science.

Mr Chairman, the American Medical Association speaks today in opposition to S. 158.

The issues raised by this bill as to when human life begins go far beyond the realm of medical science and into social, religious, philosophical, ethical and moral concerns. The issue is unsolvable solely from a medical and scientific view. Based on current scientific knowledge, the point in time when qualities of a human "person" attach to a fetus cannot be stated as a settled scientific matter. Moreover, while technologic and scientific advances have greatly expanded our ability to determine the various stages of fetal development, one point central to the proposal — the moment of conception *in vivo* — cannot be established. Not even the pregnant woman is aware when that moment has occurred.

Though medical science cannot say when the status of "person" or "human life" attaches to a fetus, this is not to say that the medical profession does not have insights to offer to those in society who may consider the enormously complex

and sensitive social issues being examined by this Committee.

The practical effects of the proposed legislation are staggering. One fact is inescapably clear: passage of this bill would have an adverse impact on critical physician-patient relationships and would create endless medical, ethical and legal difficulties for the people of this nation. A physician could face serious dilemmas in advising pregnant patients. Under the bill, the physician would be responsible for the welfare of every fetus whose legal and health interest would, in the eyes of the law, be equal to, but may be in conflict with, those of the woman.

Women would be faced with critical personal decisions affecting their health and the entire course of their lives, decisions difficult to make today that would be made even more painful by the elevation by law of a fetus to a legal person. Would the law allow a woman to continue to consent on behalf of the fetus?

Mr Chairman, there are numerous specific circumstances that physicians would face, including life-threatening emergencies, in treating women who might be pregnant:

*Circumstances presenting an extreme or high risk to the life of the woman:*

Ectopic pregnancy— A pregnancy with implantation in the tubes rather than in the body of the uterus. If untreated, this usually results in the death of the woman. There is one ectopic pregnancy for ever 120 deliveries.

Does the physician "protect" the usually unsavable fetus and watch the almost certain demise of the woman who goes untreated? How is the physician to proceed, and on whose directives?

Miscarriage (Incomplete spontaneous abortion)—Ten percent of all pregnancies end in spontaneous abortion. In the course of this, the woman's life may be threatened by uncontrolled hemorrhage.

Given that 20% of all women have some bleeding early in a pregnancy, how is the physician to determine those instances that warrant an emptying of the uterus, the indicated procedure, to end bleeding? Are those judgments and

actions forbidden by the proposed statutory scheme?

**Malignant embryo**—Any type of malignant change in the embryo. It will usually metastasize to the woman or produce local destruction — a life-threatening condition.

**Cardiovascular conditions**—In women with significant cardiac disease, such as rheumatic heart disease, pregnancy can frequently lead to heart failure and death. Death of the woman results in approximately 50% of the cases.

**Medical conditions which are aggravated by pregnancy**—Pregnancy causes severe adverse effects in a woman's underlying illness, effects which often do not regress after termination of the pregnancy (for example, neurologic damage with patients with multiple sclerosis or collagen damage in patients with systemic lupus erythematosus).

**Prescription drug intervention**—In treating women with mania, lithium is the preferred drug (well evaluated and more effective than others available), but it is also a possible teratogen in a fetus.

Similarly, women with severe epilepsy are frequently maintained on phenytoin, a known teratogen in a fetus.

*Circumstances presenting relatively low risk conditions, but limiting a woman's and physician's ability to maintain the woman's health status:*

**Mechanisms that interfere with implantation**—Two primary examples would be the IUD and the morning-after pill.

**Genetic diagnosis and medical intervention**—Effectiveness of counseling of parents regarding genetic disorders would be substantially diminished because essential diagnostic procedures, such as amniocentesis, which has a predictable fetal mortality, would be limited or unavailable.

It follows that medical intervention, following diagnosis of a genetic disorder, would also be limited or unavailable. Such circumstances could have serious adverse effects on a woman if the pregnancy could not be terminated. The types

of genetic anomalies that physicians must deal with include: amencephaly, spina bifida, and mongolism. Is medical intervention and further study to be forbidden in these cases?

Mr Chairman, the legislation does not address these physician dilemmas or provide answers to physicians who must deal on a daily basis with these critical situations. We concur with the views of the American College of Obstetricians and Gynecologists that this legislation, should it become effective, would create extreme dilemmas for the practicing physician and severe health problems for women. We have just cited several life-threatening situations where effective medical intervention would be prohibited. The American College of Obstetricians and Gynecologists similarly opposes S. 158.

A woman who has determined that she cannot carry a pregnancy to term will still seek an abortion. Those who have had to deal with the consequences, both physical and mental, caused by illegal abortionists and self-help efforts cannot understand any action which would permit a return to that state of affairs.

Mr Chairman, this legislation would improperly interfere with one of the most delicate aspects of the physician-patient relationship. The social implications for our society of ever-tightening rules to restrict prenatal medical intervention would be substantial. A "national policy" that gives legal status as a person to a fetus could severely limit research and advancement of the art and science of prenatal diagnosis and medical intervention.

#### CONCLUSION

In sum, we see no end to the negative medical, legal, social, ethical, and moral repercussions of a national policy that declares that "human life" begins at the time of conception.

Mr. Chairman, the medical profession and medical science cannot define for this Committee when "human life" attaches to incipient fetal life. We also cannot stand silently by, however, while others suggest that science or medicine can or should do so.

We urge that this Committee reject this legislation on its merits. □



## Deaths

C. F. FOSTER, JR., MD

1924-1981

C. F. Foster, Jr., MD, 57, Oklahoma City family practitioner for the past 31 years, died October 11, 1981. Born in Oklahoma City, Dr Foster took his pre-med work at Stanford University and was graduated from the University of Oklahoma College of Medicine in 1948. Following service with the US Army, Navy and Marine Medical Corps, he established his family practice in Oklahoma City in 1950, where he remained active until his death. Doctor Foster was a member of the American Academy of Family Practice.

M. H. NEWMAN, MD

1907-1981

M. Haskell Newman, MD, 73, Shattuck surgeon, died August 30, 1981. Born in Grand, Indian Territory, Dr Newman moved to Shattuck at an early age. He was graduated from the University of Tennessee College of Medicine in 1932. Returning to Shat-

tuck, he established his practice where he remained active until his recent retirement. Doctor Newman was a Life Member of the Oklahoma State Medical Association, a member of the American College of Surgeons and the International College of Surgeons. He had served several terms as a member of the Oklahoma Board of Medical Examiners.

CHARLES F. PARAMORE, MD

1898-1981

Charles F. Paramore, MD, a Shawnee physician for 54 years, died July 10, 1981. A native of Topeka, Kansas, Dr Paramore was graduated from the University of Oklahoma College of Medicine in 1924 and established his family-practice in Shawnee later that year. Doctor Paramore was a member of the International College of Surgeons, American College of Surgeons, American Academy of Family Physicians and a Life Member of the OSMA. □

## IN MEMORIAM

1980

<i>John M. Parrish, MD</i>	<i>November 8</i>
<i>Franklin D. Sinclair, MD</i>	<i>November 16</i>
<i>Henry K. Speed, MD</i>	<i>November 17</i>
<i>Joel T. Woodburn, MD</i>	<i>November 18</i>
<i>Frank R. Viereg, MD</i>	<i>December 6</i>
<i>Richard G. Stoll, MD</i>	<i>December 7</i>
<i>Robert C. Bowers, MD</i>	<i>December 31</i>

1981

<i>Athol L. Frew, Jr., DDS, MD</i>	<i>January 1</i>
<i>William R. Morris, MD</i>	<i>January 17</i>
<i>Geoffrey Kelham, MD</i>	<i>January 27</i>
<i>Charles G. Stuard, MD</i>	<i>January 30</i>
<i>Fred S. Watson, MD</i>	<i>February 3</i>
<i>Robert J. Terrill, MD</i>	<i>February 16</i>
<i>David J. Tomko, MD</i>	<i>March 4</i>
<i>Eugene F. Lester, Jr., MD</i>	<i>March 16</i>

<i>J. Samuel Binkley, MD</i>	<i>March 16</i>
<i>Gilbert L. Hyroop, MD</i>	<i>April 15</i>
<i>Leo A. Myers, MD</i>	<i>April 19</i>
<i>J. Holland Howe, MD</i>	<i>April 20</i>
<i>Harold M. McClure, MD</i>	<i>April 27</i>
<i>Sam W. Hendrix, MD</i>	<i>May 12</i>
<i>Roger C. Good, MD</i>	<i>June 16</i>
<i>Frederick G. Dorwart, MD</i>	<i>June 16</i>
<i>Joseph W. Kelso, MD</i>	<i>June 18</i>
<i>Rufus K. Goodwin, MD</i>	<i>June 25</i>
<i>Orville C. Armstrong, MD</i>	<i>July 9</i>
<i>Charles F. Paramore, MD</i>	<i>July 10</i>
<i>James D. Reynard, MD</i>	<i>July 21</i>
<i>Mark R. Everett, PhD</i>	<i>August 17</i>
<i>Khalil Ahmad, MD</i>	<i>August 22</i>
<i>M. H. Haskell, MD</i>	<i>August 30</i>
<i>C. F. Foster, Jr., MD</i>	<i>October 11</i>

□

## AMPAC Celebrates 20th Anniversary

The American Medical Political Action Committee (AMPAC) celebrated its 20th anniversary with the designation as a leader in the PAC movement. AMPAC headlined the event with a two-day political education conference on September 17 and 18, 1981, at the Mayflower Hotel, Washington, DC. The conference entitled "Design for the Decade" featured numerous well-known speakers including Congressman Newt Gingrich (R-GA), Congressman Hal Daub (R-NE) and Congressman Tony Coehlo (D-CA). A special AMPAC 20th anniversary dinner-dance was held on Thursday evening, which featured an excellent audiovisual program which reviewed the past 20 years of the AMPAC movement.

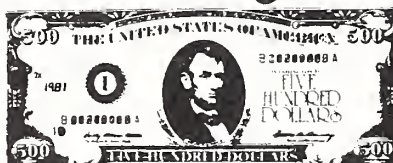
The Oklahoma Medical Political Action Committee (OMPAC) officers attended the two-day conference. William M. Leebron, MD,

OMPAC Chairman, and Floyd F. Miller, MD, OMPAC Vice-Chairman indicated that the conference was beneficial in reemphasizing the importance of political action committees and specifically the need for more physician-involvement in American politics. The OMPAC officers attended various workshops on increasing PAC membership, updates on Federal Election Commission campaign laws, evaluating candidates and increasing physician involvement.

A congressional reception was held on Wednesday evening with Congressman James R. Jones, Congressman Mickey Edwards, Congressman Glenn English, Congressman David McCurdy, and David Cox of Senator Boren's staff, attending from the Oklahoma delegation.

OMPAC membership in Oklahoma is an effective way to become involved in Oklahoma politics in a combined effort of the medical community. Please do your part to join OMPAC by sending a \$50, \$100, \$200 membership to OMPAC, PO Box 54520, Oklahoma City, OK 73154. □

## Fabulous Money Machine?



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## Continuing Medical Education Endowment Fund

Three-and-one-half years ago the Oklahoma State Medical Association created an endowment fund for the purpose of supporting a Chair in Graduate Medical Education at the University of Oklahoma College of Medicine.

The three-year plan called for every member of OSMA, on a voluntary basis, to contribute either a one time gift of \$600 or \$200 each of the subsequent three years. The goal was to raise \$750,000 of which principal funds would be invested and earned income from the investment used to pay the full salary of the professor holding the Chair position.

The three-year fund raising time period has been over for several months, and approximately \$100,000 has been collected from some 200 donors. Because the fund is considerably short of the goal with no apparent way to ac-

complish it, the question now is what to do with the money raised.

Last May the House of Delegates directed the Council on Medical Education to solve the dilemma and bring their report to the Board of Trustees for final approval. The council has since appointed a subcommittee which has developed a list of alternate uses for the funds all of which are within the continuing medical education arena.

It has been agreed that the first step will be to contact the persons who contributed to the fund to determine if they want their contributions returned. It is realized that there may be some tax problems involved; therefore, a list of possible alternate uses will be attached for guidance.

The recommended list of alternate uses for the Continuing Medical Education Endowment Fund will be presented to the OSMA Board of Trustees in November. □

## Book Review

**History of American Pediatrics.** Thomas E. Cone, Jr., Boston: Little, Brown and Company, 1979. Pages 278, illustrations, 68. \$18.95.

Tom Cone, a Boston pediatrician with a historic bent, has written an excellent history of pediatric care in America. Basically it is an excellent statement of the impressive advances in child health in this country. The book is divided into three periods — Colonial, the 19th Century, and the 20th Century. He traces the course of childhood disease in America, beginning at the Colonial period and follows this pattern to describe some of the major contributions of pediatrics in later years. The author presents the story through the leaders prominent at the time rather than through organizations or movements.

In the first portion, "The Colonial Period," there are chapters entitled "Pastor- and Governor-Physicians," "Children Discovered," and "Feeding Colonial Infants." He describes well the monotonous story of childhood illness and death due to medical ignorance and neg-

lect. There are certain landmarks, including the progressive delineation of infectious diseases and the introduction of smallpox vaccination.

The second major section, "The Nineteenth Century," has chapters such as "Perplexing Obscurity and Embarrassing Uncertainty," "Explorers in an Unknown Country," and "Infant Feeding of Paramount Concern." The 19th Century was marked by continued ignorance and frightening mortality, new epidemics of yellow fever, cholera, typhoid fever, and malaria, but also by the appearance of a few physicians interested in children. Cone discusses the status of medical education, of American pediatric texts from 1800 to 1850 and from 1850 to 1900, as well as American pediatric journals for the last half of that century.

The final section, "The Twentieth Century," has chapters entitled "Pediatrics Comes of Age," "Antibiotics and Electrolytes," "The Changing Face of Pediatrics," and "From Complexity to Simplicity." Dr Cone takes us

through the opening emphasis on biochemistry, through the important pediatric contributions of vaccines, antibiotics and other modalities. The interest in political and legislative solutions to childhood morbidity and mortality is also recorded.

The book is attractive, contains excellent, well-chosen illustrations and is well-researched and well-written. It is filled with historical data, contains a fine foreword by Dr Samuel X. Radbill, and an excellent Index. In view of the leadership of pediatrics in preventive medicine, some may believe that the emphasis on public health should be more extensive. It is quite appropriate that the book appears at the end of the International Year of the Child and in time for the Golden Anniversary of the American Academy of Pediatrics. It is a valuable addition. *Harris D. Riley, Jr., MD* ☐

## Miscellaneous Advertisements

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## Prescription For Goodwill

The traditional expression "Peace on earth, goodwill to men" is a timeless sentiment embracing a universally endorsed philosophy. While it sometimes seems impossible for competing nations to achieve peace on earth, it is within our individual reach to promote goodwill to men. I am reminded of several of our members who staff free clinics after hours so that less fortunate citizens can obtain the quality medical services they need. These physicians who donate their time and medical skills do so anonymously, asking nothing in return save for the good health of their patients. Whether we realize it or not, an example such as this can have far-reaching effects that ought not to be underestimated. As Thomas Carlyle wrote: "The work an unknown good man has done is like a vein of water flowing hidden underground, secretly making the ground green."

What examples of goodwill have you set during the past year? If you're having a difficult time recollecting, perhaps you could ask yourself some fairly simple questions pertaining to your practice of medicine.

During the past year, have I:

☐ encouraged my patients to ask questions



about their medical treatment and responded with full and understandable explanations?

- ☐ offered my medical skills in serving the health needs of my community and state?
- ☐ continued my medical education and stayed up to date in my field?
- ☐ treated my staff as professionals and compensated them fairly for their time and effort?
- ☐ actively supported my county and state medical associations?

If you're like most of us, your answers probably indicate room for improvement. By no means is this the only form of self-examination you should undergo; but it does point to some areas in which we all have profound responsibility. A key concept here is giving, whether it be of your time, your money, or your patience and understanding. A key motivator is goodwill. This is the season of giving and goodwill, as well as of peace, joy, and love, and it is appropriate to evaluate our performance. Why not use this evaluation to frame your aspirations for 1982?

As a closing note for the year, let me extend to all of you my warmest wishes for a blessed holiday season filled with giving and goodwill.

*J. B. Pitt*



# The Radiologic Diagnosis of Meckel's Diverticula

ELIZABETH A. COPLAND, MD  
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*Meckel's diverticula are a cause of rectal bleeding and bowel obstruction in both the pediatric and adult populations. The preoperative diagnosis can be difficult and may require more than one diagnostic modality. This paper will focus on the diagnostic studies available and present illustrative cases.*

## INTRODUCTION

Meckel's diverticula are the most common anomaly of the gastrointestinal tract and are usually asymptomatic. When symptomatic, the diagnosis is by no means always simple; Charles Mayo wrote in 1933 that a "Meckel's diverticulum is frequently suspected, often looked for and seldom found." A 1978 Japanese study<sup>1</sup> of six hundred cases listed a diagnosis rate of only 5.6%. The most common complications are rectal bleeding and small bowel obstruction. Optimal surgical management espe-

cially of rectal bleeding, requires an accurate preoperative diagnosis. Shendling<sup>2</sup> reported that in over one-half of the children subjected to laporotomy for rectal bleeding no cause was found. This paper will focus on the small bowel series, <sup>99m</sup>Tc pertechnetate scan, (Meckel's Scan) and angiography as diagnostic modalities and present illustrative cases.

## CASE #1

A twenty-two-year-old male presented with a two-day history of melena and abdominal discomfort. The patient gave a past history of occasional stomach cramps, but denied previous episodes of melena. Physical findings were unremarkable. The hematocrit was 32.1%. Material obtained by nasogastric suction did not contain blood but the stool was guaiac positive. The patient was transfused with three units of packed red cells. A <sup>99m</sup>Tc pertechnetate Meckel's scan was negative. An upper G I series with small bowel follow-through showed a diverticulum of the distal ileum. (Fig 2) At exploratory laporotomy a Meckel's diverticulum was found and resected.

## CASE #2

A twenty-eight-year-old white male presented with low abdominal pain of acute onset accompanied by abdominal distension, bloating, and nausea without vomiting. The pain radiated into the penis but not into the testicle. The most recent bowel movement had been the

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Fig 1: Twenty-two-year-old male with abdominal pain and melena. Small bowel series demonstrating a Meckel's diverticulum (arrow). A Meckel's diverticulum was found at laporotomy.

previous day, but he had continued to pass flatus. Past history revealed a three-year history of attacks of similar pains which had not been as severe. He had undergone an appendectomy at age twenty-five. On physical examination the abdomen was distended and tympanitic and the bowel sounds were hypoactive. Marked tenderness to palpation was present in the lower abdomen but no rebound tenderness was elicited. The patient was admitted with a diagnosis of small bowel obstruction. The hematocrit was 40.7%. The stool was positive for occult blood. An acute abdomen series and intravenous pyelogram were within normal limits. A Meckel's scan showed an increased uptake of radioactivity present in the low mid-abdomen. A subsequent upper GI series showed some irritability and coarsened mucosa of the duodenal bulb. No abnormality was noted on the small bowel series. The Meckel's scan was repeated and confirmed the presence of a small focus of increased uptake in mid-abdomen consistent with a focus of ectopic

gastric mucosa. (Fig 2) The patient subsequently underwent exploratory laporotomy and an inflammatory mass with a Meckel's diverticulum was resected.

### CASE #3

A thirty-three-year-old white female presented with rectal bleeding. She estimated the loss to be approximately one quart of bright and dark red blood in the previous few hours. No complaint of abdominal pain was elicited. The patient had had several previous episodes of rectal bleeding which had required hospitalization within the previous two years. Endoscopy had shown gastritis believed to be related to Motrin. An upper GI series with small bowel follow-through and barium enema had been negative. She had undergone a hysterectomy six months prior to the current admission. The blood pressure with patient supine was 90/50 mmHg. The findings on abdominal examination were unremarkable. Dark red blood was found in the rectum. The hematocrit was 26.8% and coagulation factors were nor-



Fig 2: Twenty-eight-year-old male with abdominal pain and guaiac-positive stools. Meckel's scan demonstrating a focus of increased uptake of pertechnetate in the mid abdomen (arrow). An inflammatory mass containing a Meckel's diverticulum was found at laporotomy.



mal. The patient was transfused with blood and her condition stabilized. A Meckel's scan was negative. A selective superior mesenteric arteriogram showed extravasation from the superior mesenteric artery. (Fig 3) Several hours after the arteriogram the patient's blood pressure dropped to 80/50. At laporotomy a Meckel's diverticulum with a small, actively bleeding ulcer crater was resected.

Meckel's diverticula are seen in autopsy series in 2% of the population, and represent the incomplete closure of the omphalomesenteric duct which is usually obliterated and detached from the embryo by the fifth week of gestation. Johann Meckel in 1812 suggested that the incidence of complications developing in a diverticulum is about 25 per cent. This conclusion has been carried through the surgical literature since that time although there have never been any data to substantiate it.<sup>3</sup> Complications include hemorrhage, small bowel obstruction due to intussusception, adhesions, volvulus, incarceration in a hernia sac (the classic Littre hernia), and diverticulitis mimicking acute appendicitis. Less common complications are perforation and neoplasm including carcinoma, sarcoma, and carcinoid.

The complications of Meckel's diverticulum may be seen at any age. In one large series over forty-five per cent of the patients were over twenty years of age. Of the patients under twenty years of age, the majority were under two years of age.<sup>1</sup> Rectal bleeding is the most common symptom in this age group and is characteristically painless, episodic, and severe.<sup>4</sup> The risk of hemorrhage apparently declines with each year after age two and a Meckel's diverticulum is not a statistically common cause of rectal bleeding in the adult population.

Several anatomic considerations explain both the complications of a Meckel's diverticulum and the difficulty in its radiographic demonstration. The usually free tip of a Meckel's diverticulum can be fixed by a vitel-loumbilical cord, inflammatory adhesion, or mesodiverticular band with resultant obstruction. A Meckel's diverticulum is a true diverticulum with tunica muscularis and demonstrates peristaltic activity. The relatively wide mouth, absent or little lymphoid tissue, and peristalsis all contribute to the self-emptying characteristics and to the subsequent difficulty in demonstration. If the diverticulum is bleed-



Fig 3: Thirty-three-year-old white female with massive rectal bleeding. Superior mesenteric arteriogram demonstrates extravasation of contrast material from an ileal artery. A Meckel's diverticulum with actively bleeding ulcer crater was found at laporotomy.

ing, the blood in the gut acts as a cathartic and further accentuates the self-emptying characteristics.

The primary anatomic factor producing the complications of a Meckel's diverticulum is the presence or absence of ectopic mucosa. Autopsy series reporting Meckel diverticula as incidental findings reveal only 12% to 15% of Meckel's diverticula contains ectopic mucosa. Surgical series reporting the presence of ectopic mucosa in Meckel's diverticula resected in symptomatic patients give the figure of ectopic mucosa as greater than 95%. The most common ectopic mucosa is gastric or pancreatic but colonic and jejunal mucosa are also reported. Peptic ulceration from heterotopic gastric mucosa, like its duodenal counterpart, can lead to bleeding, perforation, obstruction, and occasionally pain. In the bleeding Meckel's diverticulum gastric mucosa can be demonstrated in greater than 90%.<sup>5</sup> Rutherford found a ten-fold greater incidence of heterotopic tissue in specimens taken



from clinical cases as compared to those found incidentally.<sup>4</sup>

The small bowel series occasionally can demonstrate a Meckel's diverticulum, as illustrated by the first case report. In the actively bleeding patient, however, barium in the gut precludes the more accurate and definitive localization of the bladder site afforded by nuclear medicine studies or angiography. Demonstration of a Meckel's diverticulum on a small bowel series is rare; the first reported case in the literature appeared in 1934.<sup>6</sup> Stenosis of the ostium, filling with intestinal contents, muscular contractions, rapid emptying, and small size have all been cited as reasons for unsuccessful demonstration of a Meckel's diverticulum.<sup>7</sup> Enteroclysis (antegrade small bowel enema) has been stated to be a more accurate method for examining the small intestines compared with the routine small bowel follow-through. Maglinte<sup>7</sup> et al report eleven cases of surgically confirmed Meckel's diverticula diagnosed preoperatively by enteroclysis in a thirty-month period. Since a Meckel's diverticulum is often asymptomatic, the walls of the diverticulum should be closely examined for indicators of ectopic gastric mu-

cosa. Chance demonstration of a Meckel's diverticulum does not warrant elective resection.<sup>3</sup> Barium contrast studies are not indicated in the initial study of the patient with acute, severe, rectal bleeding.

The second case report illustrates the most specific diagnostic modality for a Meckel's diverticulum, the <sup>99m</sup>Tc technetium scan. The presence of ectopic gastric mucosa in virtually all cases of hemorrhage from a Meckel's diverticulum provides the rationale for the use of this radiopharmaceutical.<sup>5</sup> A persistent focus of activity, particularly in the lower quadrant, must be suspected as representing a Meckel's diverticulum.

Gastric secretion filling loops of small bowel is usually not a problem if early films are done. Occasionally the examination will have to be repeated with nasogastric suction. False positives include hydronephrosis, abdominal aneurysm, small bowel obstruction, intussusception, and arteriovenous malformations.

A negative scan does not exclude the presence of a Meckel's diverticulum. Diverticula anatomically positioned so that they retain secretions in the supine position are more likely to visualize than those that drain in this position.<sup>9</sup>

The third case demonstrates the localization of a bleeding Meckel's diverticulum by angiography. The angiographic diagnosis of gastrointestinal bleeding requires that the patient be bleeding at a minimal rate 0.5 ml per minute at the time of contrast injection. Intermittent bleeding therefore may result in a negative study. However, several authors have suggested that an angiographically demonstrable lesion is present in most cases of chronic blood loss.<sup>10, 11</sup> Venous bleeding is almost never demonstrated even in the face of massive bleeding. The angiographic diagnosis of a Meckel's diverticulum may be based on the identification of tortuous vessels to the right of midline, irregular vessels in an ileal distribution, or a rim of slightly increased accumulation of contrast which represents the thickness of a dilated loop of bowel.<sup>12</sup>

Preliminary results of the current investigation of the localization of sites of arterial bleeding with nuclear medicine studies are currently being reported. Radiopharmaceuticals using <sup>99m</sup>Tc to label sulfur colloid, albumin, and red blood cells have been the most widely used agents in these studies.<sup>13, 14</sup> Alavi<sup>12</sup> et al reported the use of <sup>99m</sup>Tc sulfur colloid studies in induced bleeding experiments in dogs and was

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able to detect bleeding rates as low as 0.1 ml per minute. The hepatic and splenic uptake of sulfur colloid limits its evaluation of sites of hemorrhage in the upper gastrointestinal tract. A nuclear scan also delivers less radiation to the patient than either barium studies with fluoroscopy or angiography.<sup>9</sup>

#### SUMMARY

The clinician is now able to choose between several different diagnostic modalities when a Meckel's diverticulum is suspected as a cause of rectal bleeding or small bowel obstruction. The first stop in the evaluation of the pediatric patient with rectal bleeding should be the Meckel's scan. If the patient is actively bleeding angiography is an alternative choice. The small bowel series is not often positive and may make other studies more difficult to perform. Enteroclysis promises to be a useful technique.

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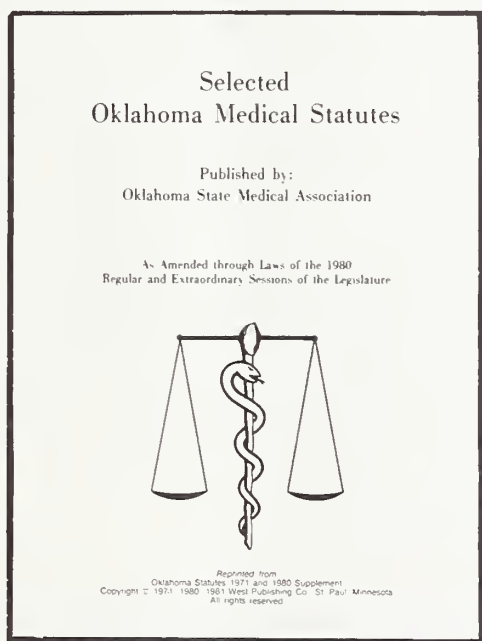
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#### INDEXING LIST

Meckel's diverticulum, angiography  
Meckel's diverticulum, enteroclysis.  
Meckel's diverticulum, radionuclide studies.  
Meckel's diverticulum, radiologic diagnosis.

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# Continuous Ambulatory Peritoneal Dialysis (CAPD)

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*Continuous ambulatory peritoneal dialysis (CAPD) is a new modality of end-stage renal disease treatment which shows great promise in improving quality of life for selected patients.*

In January 1980 a program of continuous ambulatory peritoneal dialysis (CAPD) was begun at the Oklahoma Children's Memorial Hospital. At the time of this writing, CAPD has been applied to five infants and children who were not immediate candidates for renal transplantation. Although this technique is of very recent genesis, its current popularity in the mass media prompts many patient inquiries to physicians who may not be fully aware of its application or potential. The purpose of this report is to give an overview of CAPD as it exists today.

## WHAT IS CAPD?

In 1976 Popovich,<sup>1</sup> et al described the technique of CAPD for treatment of chronic renal failure. Although somewhat variable from center to center, CAPD basically uses the continuous cycling of peritoneal dialysis solution

in the peritoneal cavity. In the adult the amount of fluid instilled is usually two liters of a standard 1.5% or 4.25% dextrose dialysate solution via a surgically-placed single- or double-cuffed peritoneo-cutaneous Tenckhoff catheter, (a silastic Teflon catheter with three sections: an intraperitoneal portion with side-hole perforations; a subcutaneous tunnel; and an external portion connected to a bag of dialysate by extension tubing). The volume of dialysate infused is scaled down for children, usually 40 ml/kg of body weight. The procedure is initiated when two liters of peritoneal dialysate is drained into the abdominal cavity by gravity, the plastic bag originally containing the fluid is rolled up still attached to the tubing and placed in a belt, pocket, or pouch. After the allotted dwell time the bag is lowered below the abdomen, the tubing unclamped, and the fluid allowed to drain out. It is then that the tubing is disconnected from the used bag (which is discarded) and attached to a fresh bag of dialysate for reinfusion. The average time for a complete exchange is approximately 30 minutes and the bags are changed three to five times per 24 hours. The disconnection and reconnection is the most critical step of the entire procedure, for it is at this time that the system is exposed to bacterial contamination. One center's protocol calls for using the same connection tube for one week and then having it changed under sterile conditions by either the patient or the CAPD nurse.<sup>2</sup> Recently Bazzato,<sup>3</sup> et al described a two-bag system and closed connection by a connector to the Tenckhoff catheter which allowed the patient to discard the entire sys-

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tem between exchanges and be completely bag-free. In this system two bags are connected by a Y-shaped set with a cap-closed needle at its end; one bag contains the sterile peritoneal dialysis solution; the other is empty. The Y-shaped connector is placed between the Tenckhoff catheter and the bag infusion-and-drainage set. This connection is closed by 'para-rubber' material suitable for multiple punctures. These investigators studied seven patients, the longest being on CAPD for five months; there was a reported incidence of one episode of peritonitis per 21 patient-months.<sup>3</sup> The stated advantages of this apparatus are a decreased substitution of the peritoneal connector, (two changes per month), patients being bag-free between exchanges and therefore improved patient compliance. Their excellent, low peritonitis incidence is yet to be duplicated.

*Dialysis Results:* All centers have emphasized the adequacy of solute removal by CAPD, including adequate removal of creatinine, urea and uric acid.<sup>1-11</sup> In spite of relatively large protein intakes (80-100 gm/day), BUN's were controlled below 100 mg/dl (mean- 59 mg/dl after six weeks) and mean serum creatinine values were usually between 10 and 12 mg/dl.<sup>1</sup> The serum CO<sub>2</sub> tends to rise toward levels obtained in normal acid-base status, serum phosphorus tends to decrease (although phosphate binders are often still required), and serum potassium values are usually maintained well within normal limits. Despite increased protein losses serum albumin usually remains in the low normal to normal range. Interestingly, the mean serum hematocrit tends to increase as does the blood hemoglobin.<sup>2</sup> Nitrogen balance studies in stable chronic peritoneal dialysis (not specifically CAPD) patients indicate that they are usually in negative nitrogen balance.<sup>7</sup> Generally this can be compensated for by a protein intake of greater than 1 gm/kg/day.

#### ADVANTAGES/INDICATIONS

Because of the newness of this technique the clear-cut indications for its use in selected end-stage renal disease patients are unclear, and it is being offered at various centers currently as an alternative to intermittent peritoneal dialysis or hemodialysis. One of the major advantages of peritoneal dialysis in general, and CAPD in particular, is its simplicity.

CAPD eliminates the needs for complicated machines and dialyzers. It is readily applied at home, is easy to learn and potentially is more economical. One center<sup>11</sup> inserts the catheter and completes the patient's training in just 7-10 dialysis days, during which time the patients perform dialysate exchanges under supervision by a Registered Nurse, are taught sterile technique, early recognition of signs and symptoms of peritonitis, dietary management of chronic renal failure, and weight and blood pressure monitoring. Patients can perform the technique alone and at home. No electricity or special water source is necessary. This technique allows home dialysis for the patient living alone or with no access to a dialysis partner, and for the patient who is unable to learn the more complex home hemodialysis techniques or who cannot relocate near a hemodialysis center. Furthermore, because there is no prolonged continuous interruption of daily activities, many patients are reported to have increased their daily activities above the level they were able to achieve on intermittent peritoneal or chronic hemodialysis.<sup>2</sup> This patient enthusiasm might result from an improved physical state or might be due to psychological factors. Another major benefit is the lack of blood-access problems; therefore, CAPD offers an alternative for those patients who repeatedly clot off arteriovenous fistulas, and for the infants who cannot afford even seemingly minor blood losses and in whom long-term vascular access is always a problem.

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Since this is a continuous technique, serum chemistries approximate a steady state, and physiological fluctuations are very minor compared to intermittent techniques. Thus a patient's creatinine, BUN, potassium and creatinine are maintained at lower levels while dialysis-related side effects such as headaches, cramps and hypotension are decreased. Furthermore, fluid removal is generally excellent; a combination of one hypertonic and three isotonic exchanges can remove approximately 1200 ml of fluid per day.<sup>2</sup> Hypertension is generally easily controlled while patients are on CAPD. Many whose hypertension was difficult to control on hemodialysis become normotensive without the use of anti-hypertensive drugs.<sup>2</sup> That CAPD is removing vasoconstrictive substances is a possibility and is under current investigation. The CAPD technique clearly lends itself to those patients in whom cardiovascular instability is a problem. Accordingly, those patients whose maintenance on chronic hemodialysis requires severe fluid restriction will have an improved quality of life on CAPD as fluid intake can be liberalized.

#### DISADVANTAGES/COMPLICATIONS

Complications of the catheter itself include local pain, catheter tunnel infection and perforated viscus. The pain manifests itself in many ways; usually at the end of a drainage phase or during placement secondary to abutment of the catheter against viscera with pressure. Other types of pain include shoulder pain and rectus muscle pain (at the costal margin) late in dialysis, and are not considered significant. Infection of the catheter inflow tract can be a problem necessitating catheter replacement at a different location. Tenckhoff<sup>7</sup> found an incidence of 0.5-1.3% of perforated viscus secondary to poor catheter placement, and warns this is especially a problem if the patient is comatose and unable to tense the abdominal wall on command during catheter placement or to warn the physician placing the catheter about pain. Also, the danger of perforated viscus increases in patients who have undergone previous abdominal surgery or in patients with metastatic tumors in whom adhesions may be prominent. A potential complication mentioned by Tenckhoff<sup>7</sup> but either unstudied or not mentioned in other reviews, is a tendency for patients to develop atelectasis and

pneumonia secondary to upward displacement of the diaphragm during the inflow stage.

Undoubtedly the most serious complication of this procedure and the most limiting is peritonitis. Despite rigorous sterile technique, the incidence remains high because of the numerous daily catheter disconnections. The most recent study<sup>5</sup> revealed one episode of peritonitis per 4.1 patient-months. This is contrasted with one episode per 7.3 patient-months in the intermittent peritoneal dialysis program at the same hospital. As a result there was one hospitalization per 3.9 patient-months (average 8.1/days) in the CAPD patient population versus one hospitalization per 10.3 patient-months (average 17.8/days) in the hemodialysis population at the same hospital. Although these populations were quite different in regard to disease process, prognosis, complicating factors, etc, this does represent a wide gap. Notably 73% of these episodes occurred in one-third of the patients, and the authors concluded that the exact consequences of recurrent peritonitis on the efficiency of dialysis, as well as the ultimate outcome of these patients, remains to be determined.<sup>5</sup> It should be noted that there is some variation in the reported incidence of peritonitis.

Oreopoulos<sup>2</sup> reported an incidence of one episode of peritonitis per 10.5 patient-months on CAPD. The organisms most frequently causing peritonitis during CAPD, especially initially, were gram positive organisms including *S. epidermis* and *S. aureus*. Later, after repeated infections, gram negative organisms are more frequently found. Anaerobes are isolated only rarely. Diagnosis is dependably made by peritoneal dialysate culture, but cell dialysate fluid cell counts  $\geq 300/\text{mm}^3$  (especially with neutrophilic predominance) are considered objective evidence of an active peritonitis. Usual signs and symptoms include fever, diffuse abdominal pain and tenderness, referred shoulder pain, hyperactive bowel sounds, diarrhea and nausea or vomiting, but peritonitis in CAPD patients can be asymptomatic early in its course. Therapy for peritonitis in dialysis patients has not been standardized. General recommendations have included intraperitoneal antimicrobial agents with or without concomitant systemic drugs for varying periods of time, but usually for at least ten days. An important consideration of intraperitoneal treatment is that peritoneal membrane clearance of antibiotics varies with the degree of inflammation; therefore no an-



tibiotic concentration should be appreciably greater than acceptable serum concentrations.

**General Disadvantages:** Though this dialysis technique lends itself to increased environmental activity by depending less on long supervised dialysis sessions, the frequent drainage, disconnect, connect and infusion procedures requiring meticulous antiseptic technique still require up to 18 hours per week. Elderly or medically complicated patients with no outside-the-house assistance may be unable to perform this task adequately. Furthermore, patient non-compliance may be a serious problem in CAPD when the treatment is more widely applied to less well-selected patients. For example, if one or two exchanges are skipped daily, the patient would be unable to detect an immediate ill effect, even though the long-term effects of inadequate dialysis may be devastating. The real cost of CAPD, although potentially thought to be less, has not been reported in detail. One recent study found the cost per treatment for both intermittent peritoneal dialysis and CAPD is higher than home hemodialysis (although lower than in-center hemodialysis costs).<sup>5</sup> Costs of CAPD may be diminished by treating some peritonitis episodes on an outpatient basis.

#### AREAS OF QUESTION

It has been postulated<sup>6</sup> that another advantage to CAPD and peritoneal dialysis in general is the avoidance of heparinization in the patient with diabetic retinopathy since the use of heparin may promote intraocular hemorrhage. Others<sup>8</sup> dispute the evidence that heparin is of etiologic importance in intraocular hemorrhage. Less controversial is the clear demonstration of hypertriglyceridemia in these patients and the tendency towards obesity. With two hypertonic and two isotonic exchanges, the adult patient absorbs an average of 69 grams of sugar a day, which provides 276 Kcal. Although the long-term implications of the hypertriglyceridemia are unknown, many investigators feel it is prudent to limit the number of hypertonic exchanges and to restrict excessive carbohydrate in the diet. During dialysis the blood sugar can be satisfactorily controlled with intraperitoneal administration of insulin.

The long-term chronic complications of neuropathy, hyperparathyroidism and renal osteodystrophy have not been fully investigated. Of unknown importance are the in-

creased large molecule clearances as well as the improved middle molecule clearances. Whether these improved clearances relate to the subjective feelings of increased well being remains to be defined.

Finally, a sclerotic thickening of the peritoneal membrane has been reported recently in patients on long-term intermittent peritoneal dialysis.<sup>12</sup> Such a complication has not yet been reported in CAPD patients, but may pose future problems for these patients.

#### CONCLUSIONS

CAPD is a viable alternative to the more traditional hemodialysis in that it offers the physiologic advantages of continuous dialysis, simplicity, lack of machine- and partner-dependence, and liberalization of diets. Its major drawback is the relatively high rate of peritonitis, and multiple sterile daily catheter manipulations. Unknown effects of CAPD include the ultimate outcome of recurrent peritonitis, hypertriglyceridemia, other chronic-dialysis-related complications, and its influence on the growth and development of children. The subjective description of these patients' feelings of well-being after being transferred from hemodialysis to CAPD is noteworthy and the speculation that this could be related to improved clearance of the "middle molecules" by CAPD is intriguing.

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## Pellagra, An Historical Review

R. BRUCE JOHNSON, BS

*Pellagra was first recognized among the corn-eating people of Europe and more recently in the southern United States, including Oklahoma. Goldberger demonstrated its nutritional cause, and Elvehjem, Spies, et al. proved the value of niacin for pellagra in 1936-38.*

The disease, pellagra, was first reported in the eighteenth century by the physician, Gaspar Casal, in northern Spain.<sup>1 (p 1)</sup> It was later described in many areas of Europe and Egypt in the nineteenth century. In the beginning of the twentieth century, pellagra was a large problem in the United States. The name, pellagra, was first used by Francisco Frapolli of Milan in 1771. Frapolli got the name from the words used by the people of his day, "morbum vulgo pelagram".<sup>1 (p 37)</sup> The last word is derived from the Italian *agra* [rough] and *pele* [skin]. In other areas of Italy the people called the disease "mal de la rosa" [disease of the rose, or briefly, *The Rose*]. This described the unique turning-red of the skin when the victim was exposed to the sun.

The disease manifests itself clinically in four stages: (1) the patient feels unwell but has no definite symptoms; (2) the stage of redness of the exposed areas of the skin, during which there occur, in addition to the skin changes, various digestive disturbances and some central and peripheral nervous disturbances; (3) the stage of severe neurological disturbances,

with psychic phenomena and a downhill phase of wasting sickness; and (4) the cachectic stage, which is usually terminal.<sup>1 (pp 3-5)</sup>

The recognition of the disease took over one hundred years, from the 1770s when Casal first reported the disease to the early 1900s when it was recognized in the United States as a killing disease. The cause of the disease has been controversial since it was first described. Casal believed it was a nutritional disease. In the late 1700s and early 1800s the belief that maize was the sole cause of the disease developed. Proponents of the belief that pellagra was caused by a maize diet were called the Zeist group or Zeists.<sup>1 (pp 55-62)</sup> Opponents to the Zeist theory, or Anti-Zeists, believed that corn had only a subsidiary role in the disease and that the main cause of pellagra was bad heredity, a communicable agent or various environmental factors.<sup>1 (pp 62-67)</sup> It took the work of Joseph Goldberger in the 1920s to determine finally that pellagra was a dietary deficiency. The exact element that was lacking in the pellagrin's diet was only discovered (after Goldberger's death) by Conrad Elvehjem and Tom Spies and their colleagues between 1934 and 1938.<sup>1 (pp 120-127)</sup>

Since Casal's first description of the disease, it had been recognized that pellagra attacked the poorest people or laborers in the rural areas and that the pellagrin's diet consisted mainly of maize. When maize was first imported into Europe it was quickly adopted as the chief grain crop. The laborers were mainly sharecroppers, who sold the main part of their crop to their landowners and kept the lower quality maize for their own consumption. The laborers were very poor and could not supplement their maize diet with other foods, nor were they allowed to use any of the owner's land to grow other foods for themselves. This

This paper was prepared in partial fulfillment of the requirements for The History of Medicine Course in the College of Pharmacy, which was taught by R. Palmer Howard, MD.



economical condition of the poor laborers set the stage for the growth of endemic pellagra across Europe, Africa and eventually the United States.

The Zeist proponents believed maize was the cause of pellagra. However, many theories developed on how maize actually contributed to the disease.<sup>2(pp 6-8)</sup> One of the first to believe that corn caused pellagra was an Italian pellagrologist, Giovanni Battista Marzari in 1810. His work was based on observations made on the Italian poor. He noticed the disease was always preceded by a diet almost exclusively of corn during winter and the condition erupted with changing of the skin color after exposure to sunlight in the spring.<sup>1(pp 55-57)</sup>

Pietro Guerreschi was the first person to suggest that pellagra was due to moldy corn. Ludovico Balardini supported the moldy-corn theory and made experiments feeding infested corn to chickens and men. His results showed a sickness that he said resembled pellagra. Cesare Lombroso, professor of psychiatry at Pavia, starting at 1862, wrote many papers supporting the corn-toxin theory. His views were later called Lombroso's theory. He found that moldy corn contained three substances: a red oil; a bitter toxin, called pellagrosin, and a resinous material. His final conclusion was that pellagra was caused by a toxin produced by the growth of an organism on maize. The corn-toxin theory got its most important support from Théophile Roussel. In 1866, Roussel published a book on his theory and stated that a diet of rotten corn and hereditary susceptibility of the poor caused pellagra.<sup>1(pp 58-60)</sup>

The anti-zeist group did not believe that maize was the cause of pellagra. They supported many different ideas of the cause of endemic pellagra: bad air, a variant of sun stroke, and an infection due to an unseen organism.

The idea that pellagra was caused by an infection grew during the last part of the nineteenth century and the beginning of the twentieth century. Many pellagrologists looked for the infectious agent and the method of transmission during this time period.

Louis Sambon, a British physician and biologist, believed that the disease was transmitted by an insect vector. He believed that the

insect vector was a fly of the genus *Simulium*. His ideas were based mainly on the disease's cyclic occurrence with the seasons. Sambon visited Italy in 1900 and 1903 to study the disease and find evidence to support his theory. He concluded that if diseased maize caused pellagra, then the disease should follow the distribution of the grain, which it did not. Sambon did find that the distribution of the disease followed the distribution of the *Simulium*, and that the field workers were excessively exposed to the fly.<sup>1(pp 84-88)</sup>

In 1911 the Pellagra Commission of the State of Illinois, headed by Dr Frank Billings, published a report that concluded that pellagra was due to an infection of a living microorganism of unknown nature; that the infection was in the intestinal tract; that a lack of adequate protein in the diet might be a predisposing factor, and that the disease was a public health menace.<sup>2(p 250)</sup>

Captain Joseph F. Siler, Medical Corps, US Army, met Sambon in Italy. Siler was part of the Thompson-McFadden Pellagra Commission from 1913 to 1916. The commission could not find any reason for pellagra to be caused by a lack of protein in the diet, from the consumption of corn, or due to any inherited factor. Though the commission stated that the disease was of an infectious nature, the transmission of the disease by an infectious agent was not demonstrated.<sup>1(pp 88-92)</sup>

In 1913 Surgeon-General Rupert Blue asked Joseph Goldberger of the United States Public Health Service to re-evaluate the problem of pellagra. At that time two main ideas were present as to the cause of the disease; pellagra was caused by a toxin on spoilt maize, or was a transmissible infectious disease. Although these theories were currently proposed, none of the pellagrologists had been able to prove the actual cause of the disease. Goldberger started his work as if there were no preceding theories of the cause of the disease. His work combined both clinical observations and laboratory experiments. He systematically showed that all of the theories present in his day on the cause of pellagra were not true, but that pellagra was due to a nutritional deficiency.<sup>1(pp 99-107)</sup>

Goldberger reported in June of 1914 that pellagra was not a contagious disease. In institutions of the mentally insane, which contained large numbers of pellagrins, he reported that none of the nurses or employees had ever contracted the disease. He noted that Sambon in Italy never took precautions to avoid catching

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the disease from the institutionalized pellagrins. He also observed that the only difference between the pellagrins and the institutional employees was the ability of the employees to supplement the low protein diets of the hospitals with milk, eggs, and other protein-containing foods.<sup>3(pp 19-22)</sup>

From 1914 to 1915, Goldberger studied the effects of changes in the diet in affected institutions. He found that an increase in meat, milk, eggs and other protein containing foods lowered the incidence of pellagra in two orphanages. Pellagra could be prevented by an appropriate diet.<sup>3(pp 29-43)</sup>

Goldberger in 1916 re-examined the theory of transmission of pellagra between humans. His results showed that pellagra was not transmitted from pellagrins to non-pellagrin volunteers; thus, pellagra could not be considered infectious.<sup>3(p 105)</sup>

To prove the cause of pellagra, Goldberger needed to be able to produce the disease. To do this in human subjects had many social disadvantages, so Goldberger had to produce pellagra in a laboratory animal. In 1917 Russell Chittenden and Frank Underhill reported a disease in dogs from malnutrition. They considered the post-mortem manifestations to be like pellagra in humans.<sup>4</sup> Goldberger's study of this report suggested that dogs with black tongue would provide the laboratory animal for pellagra. He concluded from the published literature that the first to report experimental studies supporting this hypothesis was a North Carolina veterinarian in 1916. T. N. Spencer treated dogs in the early stages of black tongue with diets of milk, eggs and raw meat.<sup>5</sup> Goldberger's first experiments were unsatisfactory, but a few years later he and his colleagues could report results which indicated that pellagra and black tongue were probably identical.<sup>6</sup> With the use of experimental diets in dogs, Goldberger was able to prove that pellagra was a disease caused by the lack of some vitamin which Goldberger called pellagra-preventive factor, or factor P-P.<sup>7</sup> Goldberger had proved that pellagra was a nutritional deficiency disease, but he died before factor P-P was completely identified.

In 1935, Conrad Elvehjem and Carl Koehn produced an extract from liver which cured the black tongue. The extract was called vitamin G after Goldberger.<sup>8,9</sup> Elvehjem in 1936 cured black tongue with either nicotinamide or

nicotinic acid. Thomas Spies and associates in 1938 showed that nicotinic acid was well tolerated by patients and would prevent and cure pellagra.<sup>10, 1(pp 121-127)</sup>

Nicotinic acid was found to be Goldberger's factor P-P. It was inexpensive and the poor could easily afford to supplement their diets with nicotinic acid. Yet it took over ten years to educate the general public about the disease, and a world war to change the economy and elevate the living conditions of the poor to prevent the disease in the United States and other highly developed areas throughout the world.

Today pellagra can be cured and prevented easily with nicotinic acid, but in remote and poorly developed parts of the world pellagra still occurs. Wherever there is poverty and people can afford to eat only corn, pellagra will remain an endemic disease which troubles mankind. Only through social changes in the life styles of the poor can pellagra be considered a disease of the past.

#### ADDENDUM

Since this manuscript was prepared a recent historical review of pellagra by Daphne A. Roe has been received at the University of Oklahoma Health Sciences Library. She emphasized that before the discovery of niacin, several workers, including T. Roussel, J. Goldberger, and W. H. Wilson, had improved the course of pellagra through dietary modification.<sup>11</sup>

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# Banquet Address

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HUMAN SERVICES

Thank you for the honor of being your banquet speaker at this, your first annual meeting of the Association for Surgical Education. I am flattered and truly delighted.

Being the first of anything is challenge enough. But being the first to take this particular podium this evening is a special challenge. Graduate medical education is under serious, intensive review by many different interests in our society — by practicing physicians who care deeply about the future of their profession, by federal and state government agencies who are charged with assuring the availability of quality care to their citizens, by third-party payers and others in the private sector, and — the most important group of all — by medical educators themselves.

Although I am currently in federal service, I still count myself as an educator. I have spent most of my life in medical education. I believe in its importance. I respect the people involved. I worry about its problems. And I feel good about its achievements.

While I join you tonight as an emissary from President Reagan's administration, I am fundamentally a medical educator and from that perspective I would like to share some thoughts with you.

As a beginning, it might be useful to step back and survey the general environment in which this first meeting of the association is being held. For example . . .

. . . We Americans now face one of our most severe tests in economic survival. The President himself has spoken of the "punishing inflation" that this country has endured so far, but cannot continue to endure much longer.

. . . We are also engaging in a major shift of power and responsibility, away from the central federal government and toward state and local government and private initiatives. It is a careful and purposeful change in the direction of our national, public life, and each one of us is affected by it.

. . . Finally, we are all engaged in a reassessment of our total health care effort, looking at how much it costs, what its objectives are and should be, and the kinds of skills and knowledge that effort will require in the years ahead.

Depending upon your point of view, these together represent an environment of great challenge and opportunity . . . or of great danger. Personally, I choose the opportunities. Despite the high levels of uncertainty and a brief period ahead of some discomfort, I think graduate medical education is in for a period of renewal over the long term.

But for the *short* term — in the here and now — we have a few serious issues we must face. For example, we must face the fact that the far-reaching programs of federal support for medical education need to be curtailed. They have to be treated as virtually every other item in the federal budget is now being treated.

They're all being either trimmed or eliminated to reduce overall the level of federal expenditures and thereby assure economic stability for the long term.

For health professions education, we have proposed a fiscal 1982 budget level of \$126 million. This means eliminating general institutional support for medical schools, undergraduate scholarship programs, and other programs that have stimulated across-the-board expansion of health professions education since 1965. It is clear that such programs are no longer of high priority.

We are, instead, placing our reduced investments into a few categories of special need. We are, for example, proposing new support for preventive medicine. We are continuing to support primary care, including general pediatric care and family medicine. We are also continuing to support, although at a reduced level, the placement of physicians and other health professionals in medically underserved areas. The national health service corps, for example, will continue to function, but with a ceiling of 2,500 assignees in the field at one time.

In addition, we are eliminating federal support programs for PSROs, for health planning, and for HMOs and we intend to close the public health service system of hospitals and clinics. Where federal support will continue for service programs, we propose that the resources and the responsibilities be given to the states. I want to touch upon this aspect in a few moments.

This is by no means a complete picture of our proposals for the fiscal 1982 budget, but I hope it does give you a sense of the change in direction and priorities that is now taking place in Washington. The change is a response not only to the hard realities of our economic condition, but it is also a reflection of what we see happening in medical practice today.

We are seeing, for instance, some important trends in the supply and distribution of physicians over the next 10-to-20 years. I am not especially fond of the term "surplus," particularly when it is applied to people; nevertheless, several reports have been issued over the past year that tend to show a steady rise in the number of persons who will be practicing certain specialties, without a parallel rise in need.

In addition, we are gaining an ever greater

understanding of the effectiveness of preventive medicine, not only in its ability to maintain good health status but also in its restraining effects on the rising costs of care. This administration is proposing to support the development of preventive medicine departments next year. But with this difference: We are giving fair warning in advance that the federal contribution will begin and end as seed money; it will not be a down payment on a self-perpetuating federal program.

This is the general landscaping of medicine, as you survey it at this particular point in history. It is the general environment in which the special efforts of surgical education take place and in which the graduates of your programs will ultimately practice.

Does this kind of overview have any *direct* relevance to surgical education? I think it does, in that it raises in my mind a number of related questions, which I want to share with you this evening.

At this time, when you are just beginning as an organization and you are not hemmed in by the conventional wisdom of the past, you can indulge in a thoughtful review of your professional activity — something that most older, highly organized and structured professional associations have a difficult time doing. And the opportunity has arrived just as the temper of the country itself has become more open to change.

I do believe that now is the time for each of you to re-examine your profession, to re-assert *your* responsibility for its current and future health, and shape your goals based upon *your* judgment, *your* experience, and *your* concerns. As citizens and as educators, you have the chance now to assume once again your rightful role in determining how best to work in — and contribute to — American society.

As a beginning, let me suggest this evening a few questions that I believe you and your colleagues need to consider in the period ahead:

*First, from an educational viewpoint, how large a residency program is desirable for your institution?* I talked before of national reports of shortages and surpluses. They reflect aggregates of numbers, collections of programs. But for each person in this association, the issue is not aggregated: It is singular and specific.

In former years, the question of size was often determined by the availability of resources. As more were available, a residency program simply grew and absorbed them. But



in your institutions, as in the country generally, there is a limitation on how much money, personnel, and facilities can be made available for any one activity.

The question of size, therefore, ought to be addressed directly. How many graduates are needed? And will they be the well-qualified people we need? Is your program big enough — or too big — to give the best answers to these questions?

Even then, your response to the issue of size will interlock with your answer to a *second* question: *What are all the costs associated with your residency program?*

I suspect I am especially sensitive to such a question, since that is what I have been doing for most hours of most of the days since I've been in Washington. I've been trying to assess the *real* costs to the American taxpayer of each program in the public health service. It is not an easy task. Many conscientious public servants before me have tried and I have been assisted by a staff of career professionals who are frequently as baffled as I.

But we are making some progress. I think the president's budget proposals for fiscal 1982 will demonstrate that. And as we begin sketching out what fiscal 1983 and 1984 should look like, we are getting an even better handle on what we are actually spending and — the whole point of the process — what we are getting in return.

This leads to the *third* question that each director of a surgical education program—or any graduate medical education program — must ask: *How good are the outcomes of your program?* How proficient are the graduates who will go on to practice or to do research? How good has been the level of care they have provided during the years of their residencies? What is the level of quality of instruction being delivered in your program? Do all the house staff really learn? Are they all up to the educational tasks?

All these questions are difficult to answer; but, for some, the question of outcomes may be particularly difficult.

As in any other professional pursuit, graduate medical education has its own variations of quality. There are many excellent residency programs in the country. You don't need a blue-ribbon commission to prove that; you just have to look at the superior level of medical care being delivered in this country to know that the graduate education has to be superior as well.

But there are gradations of quality and that is an issue that has to be faced. We know that our best undergraduate medical students are attracted to — and are usually accepted by — the best residency programs available. But what happens to those students who are *less* qualified? It would seem that *they* need the best graduate medical education, also. At least, they need the opportunity to gain strengths in those areas of greatest weakness. Are we providing them with that opportunity?

It may well be time to re-examine our criteria for admission to residencies and make some adjustments so that the best programs are open to the students who may need them the most. We must face up to our professional responsibilities and evaluate all our graduate medical education programs. Those that are inadequate ought not to retain their accreditation unless a plan is laid out to correct the inadequacies. The mood of this country is such that the public will not tolerate marginal performance among their most important, and costliest, professions. There is no excuse for mediocrity in medicine, as there is no excuse for mediocrity in law, in government, or in education.

As professionals, as citizens of the country with excellence to spare, we have to take this matter seriously. We must make sure we perpetuate what is *best* in medicine — and we must never settle for anything less.

*Fourth, what is the relationship between your program and the state or region you primarily serve?* As I indicated earlier, this administration and, from all signs I have seen, the congress as well are going to get the federal government out of many programs of direct health care delivery. Through the mechanism of block grants, we intend to pass to the states the resources and the responsibility for maternal and child care, immunization, home health care, emergency medical service, substance abuse, and so on.

The President has proposed a block grant of 15 basic health services costing \$1.138 billion and a block grant of 10 preventive health services costing \$242 million. When the states receive these block grants, they will be able to exercise their own discretion as to how much of the funds will go to this or that program. It would be in the best interests of your education programs and of the people you serve, if you actively participated in the development of those state-level decisions.

State agencies are already engaged in the



broad spectrum of health care decision-making, but the process has been contained within a web of federal rules and regulations. Under the President's proposals, those rules will no longer be in effect. The states will be able to plan and operate their programs within the broadest of general statements of policy by the Congress. For example, the very first statement of the purpose of the proposed act is "to assist each state in . . . assuring its residents . . . access to quality health service at reasonable cost . . ."

Under this proposed legislation, and within the general context of the shift of power and decision-making away from the federal government, each person in medical education has a role to play in helping improve the delivery of health care. Now is the time for each of you to assess your relationships with state and local health agencies, to examine the ways in which you have been — or ought to be — helpful to them in their mission of delivering quality health care.

A *fifth* and final question focuses again on the content of residency programs: *What kinds of knowledge and skills are being transmitted in your program and do they contribute to greater productivity among your graduates?*

Again, much of the answer will depend on how you are able to answer the earlier questions. But there is a special concern here.

I am afraid that graduate medical education may yet be captured by the inclination toward a narrowing of vision that has captured many other professions in our society. We may be expending all our time and resources on the specifics of our specialty, and neglecting to reinforce the general knowledge and skills required for medical practice of *any* kind.

My concern is that we may be producing specialists for whom most of the human mind and body is still a mystery. Their training in their specialty does not help them see their work as part of the total practice of medicine on the total human being. Their specialty becomes their limitation.

I recognize this is a very sensitive area. Many specialists — and surgeons in particular — resent having to spend countless hours in providing what amounts to general care for patients.

I hold no brief for having specialists migrate into general medical practice. Some do, and that is their own personal decision. Rather, my

concern is that we may be focusing so intently on the specialty that our residents have a limited understanding of what the rest of medicine is all about. We know it happens in other fields — engineering, law, and public administration — that I would hope we would be vigilant about such a development in medicine.

The danger is two-fold: it compromises the professional base of the individual physician, and it also limits his or her ability to function at the maximum later on in practice.

One indicator of productivity among physicians is their ability to work well within the total atmosphere of a modern medical care institution . . . in an atmosphere, by the way, that itself is undergoing constant and subtle changes. Many observers of medical education are already expressing serious concern about the productivity of new physicians. In their opinion, the productivity levels are beginning to decrease.

We all know that such a development, if it indeed is occurring may have several and interlocking causes: Limited training, a reimbursement system that tends not to reward productivity, and a disengagement from programs of continuing education.

Whatever the reason, there is some concern about the productivity levels of our more recent graduates and this should be a signal to many medical educators to look again and more closely at the content of their residency programs, as well as other aspects of their education and training enterprise.

These are some of the issues that have concerned me in my capacity as a medical educator and which still confront me, in a somewhat different order of magnitude, in my current role in the federal government. These questions touch at the core of our educational efforts, yet the answers are not simple or self-illuminating.

I offer them to you this evening, as a colleague, in the hope that, as this new association embarks on a long and distinguished journey, its members will exploit the opportunity for a fresh look at what they do . . . why they do it . . . and what the effects may be upon the health of this nation. It is your responsibility. Are you prepared to meet it? I believe you are.

Please accept once again my sincere appreciation for having me join you this evening. I offer you my best wishes for the future of this association for surgical education.

Thank you.



## Use of DMSO in Oklahoma

The 1981 Oklahoma State Legislature passed Senate Bill 6, providing for the use of dimethyl sulfoxide (DMSO) under certain conditions. The act became effective October 1, 1981.

Introduced by Senator Phil Watson, the bill both legalizes the use of the chemical and restricts its sale for human use. Physicians may prescribe DMSO without fear of disciplinary action from the Board of Medical Examiners or hospitals if the patient has given informed consent and has signed a written informed request form.

At its September 19 meeting, the State Board of Health approved, on an interim basis, the informed request form for use by physicians with patients seeking prescriptions for DMSO, with pertinent language as follows:

My physician has explained to me that the Food and Drug Administration has approved the medical use of dimethyl sulfoxide (DMSO) only for the treatment of a relatively uncommon form of bladder disease. For other conditions, it is classed as an "unapproved new drug" and federal law prohibits the interstate distribution of an "unapproved new drug."

That neither the American Cancer Society, the American Medical Association, nor the Oklahoma State Medical Association



## News From The Oklahoma State Department of Health

tion recommends the use of DMSO in the treatment of any malignancy, other disease, illness, or physical condition.

That there are alternative recognized treatments for the malignancy, other disease, or physical condition from which I suffer which he has offered to provide for me, including (here described).

The board provided that four copies of the form will be signed, with the physician and patient each retaining a copy and, as required by law, a copy filed with the state health department. The fourth copy should become part of the files of any hospital or clinic involved.

The law also prohibits the retail sale of DMSO in quantities of less than ten gallons directly to consumers. The health department is charged with regulation of the distribution, standardization, and sale to insure the unadulteration or misbranding of the chemical.

Physicians wishing to obtain copies of the form should request them from the Commissioner of Health, PO Box 53551, Oklahoma City, Oklahoma 73150

### COMMUNICABLE DISEASES IN OKLAHOMA FOR SEPTEMBER, 1981

DISEASE	September 1981	September 1980	August 1981	TOTAL TO DATE	
				1981	1980
Amebiasis	2	3	4	21	36
Aseptic Meningitis	3	4	28	79	39
Brucellosis	3	2	—	6	7
Encephalitis, Infectious	1	—	2	19	10
Gonorrhea (Use Form ODH-228)	1489	1232	1548	11891	10452
Hepatitis A	16	28	31	226	294
Hepatitis B	19	20	21	167	158
Hepatitis Unspecified	20	16	9	112	200
Malaria	—	—	2	6	12
Measles (Rubeola)	—	—	—	6	774
Meningococcal Infections	1	—	4	36	18
Pertussis	—	1	1	2	23
Rabies (Animal)	23	9	16	183	196
Rocky Mountain Spotted Fever	3	3	10	93	59
Rubella	1	1	—	1	5
Salmonellosis	50	44	63	310	246
Shigellosis	80	29	99	317	185
Syphilis (Use Form ODH-228)	10	13	13	127	87
Tetanus	—	1	—	1	1
Tuberculosis	20	37	46	261	250
Tularemia	7	1	2	24	19
Typhoid Fever	1	1	—	5	5

## Loss Prevention Program Reaches More Than 7,000

OSMA's Loss Prevention Program has provided malpractice prevention information to more than 7,000 people since its inception in January 1980. Initiated when PLICO was formed, the program is designed to help physicians avoid malpractice litigation by instituting some simple precautionary measures.

"The OSMA Board of Trustees and PLICO's Board made a strong commitment to malpractice prevention when we started the insurance company," David Bickham, OSMA executive director, pointed out. "Many lawsuits are preventable, especially those that result from misunderstanding, poor record-keeping, and lack of communication between physician and patient."

Bickham said the Loss Prevention Program focuses on helping physicians and their employees to avoid legal "pitfalls" that result in cases going to trial. "In most instances these cases are resolved in favor of the physician," Bickham noted. "They probably would not have been tried if some basic precautionary steps had been taken."

Chief advisor to the program is Ed Kelsay, OSMA staff legal counsel. He has traveled more than 20,000 miles and made nearly 170 presentations in less than two years. "Ed has distributed over 6,000 copies of *Professional Liability Medical-Legal Guide for Physicians*," Bickham said, "and he has spoken to almost 2,500 doctors — most of the practicing physicians in the state."

The executive director indicated that it is difficult to evaluate the Loss Prevention Program because it is the only one of its kind in the nation. "While most associations with insurance programs have some type of malpractice prevention activity, none have taken it on the road the way we have," he remarked. "But we must be doing something right. We still have nearly the lowest insurance rates in the nation." □

## OSMA Board of Trustees Holds Regular Meeting

The OSMA Board of Trustees held their scheduled November 22 meeting at the association's headquarters at 1:30 PM. Due to the publication date of *The Journal*, actions taken at this meeting cannot be reported until the next *OSMA News* or the January issue of *The Journal*.

Several significant issues affecting OSMA members were discussed. Among these were several proposals dealing with the operations of Physicians Liability Insurance Company (PLICO), the association-owned insurance company. The proposals focused on insurance rates recommended for 1982 and possible expansion of PLICO operations to include a health and accident insurance plan for members, their families and employees.

The board also reviewed reports submitted by the various OSMA councils. □

## Voluntary Effort Publishes Health Care Cost Brochure

The Voluntary Effort to Contain Health Care Costs has published a new brochure that tells consumers what they can do to cope with rising health care costs. Titled *Health Care Costs: What Can You Do?*, the brochure points out that increased health care costs come out of everyone's pocket in higher taxes, higher premiums and deductions, and higher prices for goods and services. It lists practical actions consumers can take to keep health care costs down. The brochure also contains a special section for older consumers, prepared with the assistance of the National Retired Teachers Association/American Association of Retired Persons.

*Health Care Costs: What Can You Do?* is available in lots of 100 for \$15; bulk rates are also available. For a free copy of the brochure, send a self-addressed, stamped envelope to: The Voluntary Effort, 1001 West, 840 North Lake Shore Drive, Chicago, IL 60611.

The Voluntary Effort is a coalition of organizations representing hospitals, physicians, insurers, health product manufacturers, business, government, and consumer interests. It was founded in 1977 to mount a national campaign to contain health care costs. □





Anita H. Delaporte

### **Anita H. Delaporte Named OSMA Director of Communications**

Anita H. Delaporte is the new director of communications for OSMA. She will be responsible for directing the association's public relations program and for coordinating production of the *OSMA Journal*, *OSMA News*, and other association publications.

An experienced writer, editor, and management consultant, Delaporte plans to work closely with the Council on Professional and Public Relations to bring a fresh perspective to public relations efforts.

"The medical profession deserves to have its contributions to the state recognized in a positive way," Delaporte said. "Too often, it is only the medical crisis or controversy that makes the news. I want to emphasize the involvement of our physicians in activities that benefit the health and well-being of our citizens."

In the publications area, Delaporte indicated she wants to expand the coverage of association activities. She noted that "unless our members know more about what OSMA is doing, it will be difficult for them to measure the value of the services we provide and difficult for us to determine how well we are meeting our members' needs."

Prior to joining OSMA, Delaporte was a management consultant and communications specialist with the Washington, DC, office of Deloitte Haskins & Sells. Her editorial ex-

perience includes four years as associate editor of *Parks & Recreation* magazine, two years as a staff writer with Aetna Life & Casualty, and freelance assignments as a researcher and writer for several major federal agencies and not-for-profit organizations. She also has experience in newspaper writing and photography.

A native of Washington, DC, Delaporte was graduated with honors from the University of Maryland College of Journalism. □

### **Tulsa Lawmakers Propose Agent Orange Legislation**

Two Tulsa County lawmakers have pre-filed bills that call for a study of the effects on Vietnam veterans of exposure to agent orange.

Senator Jerry Smith, Tulsa, pre-filed a bill providing for a coordinated study by the State Health Department and the state's hospitals and medical college of the symptoms suffered by veterans exposed to agent orange or other defoliants.

Smith has signed on as the Senate author of a similar bill pre-filed in the House by Rep. Rodney G. Hargrave, Sperry. The House bill (HB 1492) contains two items not included in Smith's bill (SB 380). It expands the definition of agent orange to include other herbicides and it calls for creation of a three-member Agent Orange Outreach Commission.

Commission members would be appointed by the governor; two would be Vietnam veterans and one a Vietnam-era veteran. The commission would be charged with conducting a program to identify and inform veterans of possible detrimental effects from exposure to defoliants. It would serve as a clearinghouse for medical, scientific, and epidemiological data on the effects of exposure.

Two physicians with expertise in neurology, oncology, or medical genetics would serve as advisers to the commission concerning effects of and treatment for exposure to agent orange.

Agent orange is named for the color-coded bands on the drums used for its storage. Approximately 12 million gallons of this and other chemicals were sprayed during the Vietnam conflict to destroy enemy ground cover. The spraying occurred between 1962 and 1970. □



## **OSMA Umbrella Policy Is "Personal Liability" Best-Buy**

At a time when liability lawsuits and insurance premiums are on the upswing generally, the OSMA-sponsored Personal Umbrella Liability Program is offering uniquely broader coverage at reduced rates to association members.

The OSMA policy has protected over 1,000 physicians since its inception four years ago. It is available through C. L. Frates and Company, the same insurance agency which manages the Physicians Liability Insurance Company; the coverage is underwritten by United States Fire Insurance Company.

A "personal liability" umbrella policy significantly increases the limits of protection above the *personal liability* coverages found in homeowners policies, automobile policies, watercraft policies, incidental business properties, and employer's liability for farm employees. "Personal liability" involves claims which arise from injury to a person or damage to another person's property.

A personal umbrella policy does not apply to professional negligence.

All certificates through the OSMA program are renewable each January 1st. The 1982 renewal features higher coverage options at reduced rates and a lower premium per vehicle for all additional automobiles owned above the first two.

The "basic" Personal Umbrella Liability Policy under the OSMA group plan costs \$65 annually for \$1,000,000 in additional protection for the following risks and their respective required underlying coverages:

Primary Residence (Required Underlying Coverage of \$100,000).

Two Automobiles (Required Underlying Coverages are \$100,000 per person, \$300,000 per accident and \$50,000 property damage).

Additional automobiles (over two) require only \$10 more annual premium each, as opposed to \$15 each in 1981.

The top coverage limit in 1981 was \$5,000,000. In 1982, however, \$10,000,000 is available through the OSMA program, and the premium for each \$1,000,000 increment of increased coverage has been reduced by about eight percent.

As an example, a physician could extend

his personal liability protection to \$10,000,000 for his principal home and two automobiles at an annual premium of only \$195.

OSMA's reduced group premium rates for this protection cannot be matched through an individually-rated policy, according to the Frates agency. Moreover, the umbrella approach is an inexpensive way for a physician to obtain the high limits necessary to achieve comfortable security against the personal liability risk.

For more information about the Personal Umbrella Liability Program of the OSMA, a physician may contact either C. L. Frates and Company on a direct basis, or may work through a local agent of choice. The Frates agency may be reached at PO Box 18839, Oklahoma City, Oklahoma 73154 (Tel. (405) 848-7661). □

## **PMTC Sets Project Goal For Physician Data Bank**

The Physician Manpower Training Commission (PMTC) has outlined a project for compiling the most comprehensive body of data on physician manpower in the state of Oklahoma.

The goal of the data bank project is to provide information to the governor's office and legislative leadership concerning graduates of Oklahoma's state-supported medical and osteopathic colleges and graduates of out-of-state colleges who either received postdoctoral training in Oklahoma or chose to move to Oklahoma to practice.

Physician data to be collected include location of postdoctoral training, specialties, scholarship information, location of practice and size of town where service is rendered, and frequency of physician relocation.

To carry out the project, the PMTC has formed a Physician Manpower Data Committee consisting of representatives from all organizations that collect and maintain physician manpower information. These groups include the University of Oklahoma Health Sciences Center, Oklahoma State Medical Association, Oklahoma Osteopathic Association, Oklahoma Osteopathic College, Board of Medical Examiners, Board of Osteopathic Examiners, Health Systems Agency, Health Planning Commission, and National Health Service Corps. □



## Deaths

S. N. STONE, JR., MD  
1908-1981

S. N. Stone, Jr., MD, 73, Past-Speaker of the OSMA House of Delegates, died November 9, 1981. Born in Calumet, OK, Dr Stone was graduated from the University of Pennsylvania School of Medicine in 1932. He took his residency training in surgery at the Mayo Foundation and was named First Assistant Surgeon at the Mayo Clinic for one year. In addition to his private practice in Oklahoma City, Dr Stone was Professor of Surgery and Associate Dean of Clinical Instruction at the University of Oklahoma Health Sciences Center.

Certified by the American Board of Surgery, he was a Fellow of the American College of Surgeons and a member of the Southwestern Surgical Congress, the Oklahoma Surgical Society and Oklahoma City Surgical Society.

*Editorial Note: The second article in the Journal's new series "Leaders in Medicine" was to have been a tribute to Dr Stone and would have been published in January, 1982.*

E. E. SHIRCLIFF, MD  
1913-1981

E. E. Schircliff, MD, Oklahoma City general practitioner, died October 23, 1981. Born in Hutchinson, Kansas, Dr Shircliff was graduated from the University of Kansas School of Medicine in 1939 and moved to Oklahoma City in 1940. In addition to his private practice, Dr Shircliff was assistant professor of clinical medicine at the University of Oklahoma Health Sciences Center. He was a co-founder of the American Institute of Discussion. □

## IN MEMORIAM

### 1980

<i>Frank R. Vieregg, MD</i>	<i>December 6</i>
<i>Richard G. Stoll, MD</i>	<i>December 7</i>
<i>Robert C. Bowers, MD</i>	<i>December 31</i>

### 1981

<i>Athol L. Frew, Jr., DDS, MD</i>	<i>January 1</i>
<i>William R. Morris, MD</i>	<i>January 17</i>
<i>Geoffrey Kelham, MD</i>	<i>January 27</i>
<i>Charles G. Stuard, MD</i>	<i>January 30</i>
<i>Fred S. Watson, MD</i>	<i>February 3</i>
<i>Robert J. Terrill, MD</i>	<i>February 16</i>
<i>David J. Tomko, MD</i>	<i>March 4</i>
<i>Eugene F. Lester, Jr., MD</i>	<i>March 16</i>
<i>J. Samuel Binkley, MD</i>	<i>March 16</i>
<i>Gilbert L. Hyroop, MD</i>	<i>April 15</i>

<i>Leo A. Myers, MD</i>	<i>April 19</i>
<i>J. Holland Howe, MD</i>	<i>April 20</i>
<i>Harold M. McClure, MD</i>	<i>April 27</i>
<i>Sam W. Hendrix, MD</i>	<i>May 12</i>
<i>Roger C. Good, MD</i>	<i>June 16</i>
<i>Frederick G. Dorwart, MD</i>	<i>June 16</i>
<i>Joseph W. Kelso, MD</i>	<i>June 18</i>
<i>Rufus K. Goodwin, MD</i>	<i>June 25</i>
<i>Orville C. Armstrong, MD</i>	<i>July 9</i>
<i>Charles F. Paramore, MD</i>	<i>July 10</i>
<i>James D. Reynard, MD</i>	<i>July 21</i>
<i>Mark R. Everett, PhD</i>	<i>August 17</i>
<i>Khalil Ahmad, MD</i>	<i>August 22</i>
<i>M. H. Haskell, MD</i>	<i>August 30</i>
<i>C. F. Foster, Jr., MD</i>	<i>October 11</i>
<i>E. E. Shircliff, MD</i>	<i>October 23</i>
<i>S. N. Stone, Jr., MD</i>	<i>November 9</i>

□

## Summary of Consensus Development Conference on Childbirth by Cesarean Delivery

A National Institutes of Health Consensus Development Conference, held at NIH September 22-24, 1980, addressed the issue of childbirth by cesarean delivery. The conference was sponsored by the National Institute of Child Health and Human Development, in conjunction with the National Center for Health Care Technology and with the assistance of the Office for Medical Applications of Research, NIH.

After two days of considering expert presentations and audience comments, a 19-member task force, composed of specialists in a wide variety of medical and non-medical disciplines, issued a consensus statement. This is a summary of that statement.

The nation's high cesarean section delivery rate may be lowered without impeding progress toward reducing maternal and infant mortality and morbidity. The trend of rising cesarean rates may be stopped or perhaps reversed while continuing to make improvements in maternal and fetal outcomes.

The US cesarean rate tripled from 5.5 percent in 1970 to 15.2 in 1978, making cesarean section the tenth most common surgical procedure. Repeat cesarean deliveries are responsible for 30 percent of the overall rise in cesarean rates. More than 98 percent of the women in the United States undergo repeat cesareans for subsequent pregnancies.

Appropriate facilities, services, and staff should be available before attempting labor and vaginal delivery for women who have had a previous cesarean. Hospitals should obtain informed consent before a trial of labor and develop guidelines for the management of those labors.

There should not be any changes in practice for elective repeat cesarean delivery by patients who have had a previous classical, inverted T-shaped, or low vertical incision, or for whom there is no documentation of the state and/or type of previous incision.

The diagnostic categories of dystocia, breech presentation, and fetal distress have also contributed to the increasing cesarean birth rate and alternative management may reduce the need for cesarean.

Dystocia accounted for 30 percent of the overall rise in the cesarean delivery rate between 1970 and 1978. Physicians should try alternatives before considering cesareans during this prolonged labor and dysfunction, in the absence of fetal distress. These alternatives include patient rest, ambulation, sedation, or stimulation of labor by using oxytocin.

Breech presentation is responsible for about 15 percent of the rise in the cesarean rate. Vaginal delivery of the term birth is acceptable when the anticipated fetal weight is less than 8 pounds; pelvic dimensions and architecture are normal; hyperextension of the head is not present; and when delivery is conducted by a physician experienced in vaginal breech delivery.

Although fetal distress is diagnosed more frequently since the use of electronic fetal monitoring has become more common, it only occurs in about 1 percent of all births and accounts for 15 percent of the increase in cesarean rates.

There should be a liberalizing of hospital practices to allow fathers or surrogates to attend cesarean births at the request of the mother and hospitals should permit healthy, cesarean-delivered babies to be with their parents immediately after birth. For free copies of the cesarean delivery consensus development statement, contact the Office for Medical Applications of Research, National Institutes of Health, Building 1, Room 216, Bethesda, Maryland 20205.

The NIH Consensus Development Program brings together biomedical investigators, practicing physicians, consumers, and others to carry out scientific evaluations of medical devices, procedures, and drugs. These technologies may be new or in general use.

*Editor's Note: The complete, detailed consensus development statement on cesarean childbirth is on file in The Journal office. Copies of it can be provided upon request of members. MRJ* ☐

76TH Annual Meeting of the  
**OKLAHOMA STATE MEDICAL  
ASSOCIATION**

**MAY 5-8, 1982**

**SKIRVIN PLAZA HOTEL  
Oklahoma City, OK**



OSMA/PLICO Publish Booklet on State Medical Statutes

*Selected Oklahoma Medical Statutes*, a compendium of state medical statutes updated to include the 1980 sessions of the legislature, is now available from OSMA. Published jointly by PLICO and OSMA, the booklet has been well received by the medical community. Jack Spears, executive director of the Tulsa County Medical Society, commended the publication as "a splendid reference document that will be of enormous value to Tulsa County Medical Society in providing information services to both physicians and patients." *Selected Statutes* will also be of interest to others who work closely with physicians, such as lawyers and accountants. It is available free to OSMA members by writing to OSMA headquarters. Non-members may purchase the booklet for ten dollars. □

Council Committee Acts on Environmental Issues

The Committee on Environmental Quality, a subcommittee of the OSMA Council on Public and Mental Health, took action on two important environmental issues at its meeting in October. The committee voted to modify its fluoridation resolution and submit it to the OSMA Board of Trustees for board approval to send the resolution to the Environmental Protection Agency. The committee also drafted a policy statement for OSMA supporting the reauthorization of the Clean Air Act of 1970. Dr George Kamp presented the statement at a Citizens' Public Hearing on the Reauthorization of the Clean Air Act held October 24. The hearing was chaired by Rep. Mike Synar, member of the House Committee on Energy and Commerce. □

Fabulous Money Machine?



If you owned a machine that printed a brand new \$500 bill each week, you'd be most fortunate wouldn't you? But, what if this very special machine had parts that could not be replaced? As a prudent person in control of such a machine you would want some assurance that if the machine stopped producing \$500 bills, you could still receive them, wouldn't you?

Physicians are high-achieving professional breadwinners and can be compared to "money machines". But, they are also human beings, who because of their profession, have a greater than average understanding of the prospects of unexpected accidents and illnesses which can impair or destroy their income producing ability.

Through the Oklahoma State Medical Association Group Disability Program, you have the opportunity to obtain assurance of uninterrupted income if your health should fail.

Three plans are available. Plan L-65 pays accident benefits for lifetime. Sickness benefits are payable to age 65, or for a 2-year maximum period if disability begins between ages 63 and 70. Benefits are payable for 10 years based on being unable to perform every duty of your occupation; thereafter, based on being unable to perform the duties of any gainful occupation for which you are reasonably fitted.

Semi Annual Premium — Benefit payable after 8 days for sickness, first day for accidents.

Plan	WEEKLY INDEMNITY	UNDER AGE 30	AGE 30-39	AGE 40-49	AGE 50-59	AGE 60-69
L-65	\$500.00	\$301.50	\$346.50	\$476.50	\$641.50	\$418.50*
	400.00	241.50	277.50	381.50	513.50	418.50*
	300.00	181.50	208.50	286.50	385.50	418.50
	200.00	121.50	139.50	191.50	257.50	279.50
	100.00	61.50	70.50	96.50	129.50	140.50



For full particulars, contact JANE GRIFFITH

C. L. FRATES & COMPANY, INC.  
Administrator, OSMA Group Insurance Plans  
720 N.W. 50th Street, Oklahoma City, OK 73118 (405) 848-7661

## VA Clearinghouse Matches Physicians to Vacancies

The Veterans Administration has established a Physician Clearinghouse to match qualified applicants with physician vacancies at VA Medical Centers. Through the clearinghouse, physicians may apply for openings throughout the VA system by submitting a single application and set of references. Qualifications and practice preferences are matched with VA needs within twenty-four hours to generate a list of interested, qualified applicants for each vacancy. The application and references of each matched applicant are forwarded to the requesting medical center, where physician interviews and evaluations are conducted.

The VA operates the nation's largest medical care delivery system. Most VA Medical Centers maintain active affiliations with nearby medical schools and offer physicians clinical, teaching, and research opportunities. For clearinghouse information and application, contact: VA Physician Placement Service, PO Box 719, Randolph, MA 02368. □

## Lecture Series Recognizes Contributions of Dr Lynn

The University of Oklahoma Department of Community Medicine has established a lectureship in honor of its former chairman, Thomas N. Lynn, Jr., MD. The lectureship will focus on three areas: law, ethics, and public policy; advancement of health through the practice of prospective and preventive medicine; and development of effective ambulatory care.

A graduate of the University of Oklahoma and the Oklahoma College of Medicine, Dr Lynn was department chairman from 1969 to 1976, when he was named dean of the College of Medicine. He currently serves as vice-president for medical staff affairs at the Baptist Medical Center in Oklahoma City.

During his tenure as department chairman, Dr Lynn was instrumental in developing teaching programs in law, ethics, and public

policy. He introduced the concept of prospective medicine to his students nearly twenty years ago; since that time this positive approach to preventive medicine and health education has become a formal part of the medical college curriculum. Dr Lynn also made significant contributions to the family practice area through his advancement of teaching concepts for ambulatory medicine.

The Thomas N. Lynn Lecture will be given twice each year. The fall semester lecture will emphasize law, ethics, or public policy, and the spring semester lecture will focus on preventive medicine, prospective medicine, or ambulatory care. The first lecture was presented in October by Dr Edward N. Brandt, Jr., assistant secretary for health, US Department of Health and Human Services.

Contributions to the lectureship may be sent to the Alumni Association, Room 337, Biomedical Building, PO Box 26901, Oklahoma City, OK 73190. □

## MEDICAL DIRECTOR



### Central Oklahoma Ambulance Trust

The Central Oklahoma Ambulance Trust, which operates AmCare Emergency Medical and Ambulance Service in central Oklahoma, is accepting applications for Medical Director.

- \* Qualified physician to direct Trust's medical affairs
- \* Advise on medical protocols, continuing and inservice education and quality assurance review
- \* Projected need: 40 hours monthly

### Send Vitae/Salary Requirement by December 15 to:

Larry Long, MD, Chairman  
Selection Committee  
Central Oklahoma Ambulance Trust  
2409 N. Broadway  
Oklahoma City, Okla. 73103



## JCAH Increases Survey Fees For Accreditation Program

The Joint Commission on Accreditation of Hospitals (JCAH) has announced that it will raise survey fees in 1982. John E. Affeldt, MD, president of JCAH, cited the new three-year accreditation cycle for hospitals and psychiatric facilities, the effects of inflation, and the minimal fee increases over the past few years as the primary reasons for the increase.

The three-year cycle will reduce the total number of surveys conducted in each fiscal year. Since the major portion of JCAH revenues is derived from survey fees, this reduction would impose a severe financial burden on the commission.

While the new fee structure is higher than the existing one, it approximates current charges when calculated on an annual basis. The three-year cycle also reduces by at least one-third the cost incurred by facilities in assigning staff to prepare for and participate in the survey process. Savings in this area should more than offset the increase in survey fees.

The 1982 fee structure is as follows:

- general, acute-care hospital, and psychiatric hospital — \$1,000 per surveyor per day
- non-hospital based psychiatric facilities — \$825 per surveyor per day
- ambulatory health care organizations — \$700 per surveyor per day
- long-term care facilities — \$625 per surveyor per day.

The new survey application processing fee

will be \$250. However, multi-program facilities, such as hospitals with psychiatric, long-term care, and ambulatory health care programs, will be charged the basic fee plus \$100 for each additional program surveyed.

## Book Review

**Grant's Method of Anatomy by Regions Descriptive and Deductive.** John V. Basmajian. Baltimore and London: Williams and Wilkins, 1980. Pages 625, illustrated.

This textbook has been employed in medical schools by students of anatomy for more than forty years. The concept of regionalization and clinical emphasis was initiated by the late Professor Grant. It is still just as pertinent today, if not more so, than at the time the first edition appeared. As the editor states in the preface to the tenth edition, ". . . this is not a book on clinical examination; it is a book with a clinical foundation, ie, an anatomical basis for clinical practice."

The format is the same as in previous editions. The full text, however, has been condensed some ten-percent despite the fact that certain portions of new text and illustrations have been reduced. Perhaps the only criticism of this standard reference is the problem in relating an illustration to the text. Often one must turn several pages to accomplish this. The quality of reproduction of many of the radiographs could be improved.

This book, which has stood the test of time, remains valuable for the student as well as for the clinician who wishes to refresh his knowledge of anatomical relationships in a current clinical problem. *Harris D. Riley, Jr., MD* □

## Miscellaneous Advertisements

RADIOLOGIST, 45, BOARD CERTIFIED. Wish to relocate in smaller town. General diagnosis, ultrasound and nuclear medicine. Contact 226 Blue Castle, Houston, TX 77015, (713) 455-1577 or (713) 455-5492.

OB/GYN-URGENT NEED FOR board certified or board eligible obstetrician/gynecologist. Expanding accredited multi-specialty group has an immediate opportunity for a top-notch candidate. Excellent compensation and fringe benefits. Inquiries confidential.

Contact Jim Freed, MD, Chickasha Clinic, (405) 224-4853.

FAMILY PHYSICIANS, CENTRAL OKLAHOMA MEDICAL GROUP, an independent professional corporation has a growing fee-for-service and prepaid medical practice in association with Prudential Health Care Plan of Oklahoma (PruCare). Second facility opening February '82. Excellent hours, salary, vacation and tax-free benefits. Extra pay for board certification. Contact R. LeRoy Carpenter, MD, 3330 NW 56 St., Suite 300, Oklahoma City, OK 73112 (405) 942-6620. □

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(E)—Editorial	(S)—Scientific
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